

## SUMMARIES OF, AND RESPONSES TO, PUBLIC COMMENTS

## **Introduction**

On October 20, 1997, EPA published a notice in the Federal Register (Volume 62, Number 202, Pages 54453-54454) announcing the Agency's intent to submit the Information Collection Request entitled "1997 Iron and Steel Industry Data Collection" to the Office of Management and Budget. At that time, the Data Collection consisted of one detailed survey instrument. Through the notice, the Agency requested comments and suggestions regarding the survey and the reduction of data collection burden, and asked that the public submit all comments and suggestions within 60 days of the Federal Register notice publication. EPA also met with members of industry trade associations to discuss the survey and the burden associated with its administration. This attachment presents summaries of all comments received in response to this notice, as well as Agency responses to those comments. These comments were received from the American Iron and Steel Institute (AISI), the Specialty Steel Industry of North America (SSINA), the Steel Manufacturers Association (SMA), AK Steel Corporation (AK Steel), the Steel Tube Institute (STI), and Wheatland Tube Company (Wheatland).

Each set of comments received in responses to the notice were organized by subject. EPA developed a comment numbering system to separate and organize comments, and to combine like comments into a common subject. Written comments are coded with a "W," comments made during meetings with trade associations (as recorded in meeting minutes) are coded with an "M," and additional comments received during trade association meetings and written for the record as a supplement to the meeting minutes are coded with an "S." EPA assigned a number to each set of "W," "M," and "S" comments, and assigned a number to each individual comment made within the set. In addition, each comment number contains the original page on which each comment is located. Thus, a comment number of W3.17.P4 is the seventeenth individual comment made on page four of the third set of written comments received by the Agency.

The organized comments were then summarized by subject. Each summary consists of a subject code, the set of comment numbers associated with that subject, identification of the specific commenters, the summarized comments, and the Agency response to those comments. Some subject codes may consist of multiple summaries and responses.

Within each summary, references are made to survey question numbers. The question numbers noted by the commenters refer to the August 26, 1997 version of the survey that was made available at the time of the Federal Register notice. Since the notice, EPA has subdivided the survey into three separate surveys: the Detailed Survey, the Short Survey, and the Capital Cost Survey. The Detailed Survey corresponds to the "1997 Iron and Steel Industry Data Collection" made available for public comment. EPA has since deleted certain questions and modified others in the Detailed Survey. If a question number has changed due to a survey modification or update, this change is noted beneath the subject if it applies to the entire subject. If a number change only affects a specific summary, the change is noted in the response to that summary.

In addition to revisions to the Detailed Survey and development of a Short Survey and a Capital Cost Survey, EPA added two follow-up questions to the data collection. These elements are described in the Information Collection Request and are referenced in the comment Summaries and Responses.

## **Summaries and Responses**

**Subject:** CONFIDENTIAL BUSINESS INFORMATION

**Comment**

**Numbers:** M4.8.P3, W3.11.P2, W3.12.P3, W6.22.P5

**Commenters:** (SSINA) meeting 12/4/97 (1), SSINA (2), (SMA) (1)

**Summary A:**

SSINA commented that the association is "...concerned about releasing confidential business information (CBI). Many of the survey's questions require facilities to disclose confidential technical and financial information. The Agency must provide 'iron clad' assurances that persons reviewing this survey, particularly contractors, will adhere strictly to the Agency's CBI policies and responsibilities. The Association is concerned that contractors (or less probably Agency staff) could unknowingly or intentionally divulge CBI that could undermine a facility's competitive advantage within the industry. EPA must assure the industry that a contractor who has had access to confidential information, particularly regarding a specific manufacturing process unknown in the industry, will not work for a company's competitor in the future and reveal important confidential information."

SSINA also stated, "If the CBI is needed, the Agency should take steps to ensure that contractors are not privy to the information. It is unclear why 'EPA contractors' and 'contractor employees' must see the information in the first place, particularly financial information. Limitations on those who may access CBI must be imposed. To ease industry concerns, SSINA suggests that EPA provide a copy of its CBI procedures and a copy of its confidentiality agreement with its contractors."

**Response A:**

Regulations governing the confidentiality of business information are contained in the Code of Federal Regulations (CFR) at Title 40 Part 2, Subpart B.

EPA has contracts in place authorizing contractors to use confidential information only if they have been trained in, and have agreed in writing to abide by, EPA procedures for handling CBI; and only if they need the CBI to complete the contracted tasks.

Contractors are prohibited from disclosing CBI to anyone other than cleared EPA employees without the prior written approval of the affected business and the Assistant General Counsel for Contracts and Information Law. Cleared contractors will return CBI to the Agency when (i) they have completed the tasks required by the contract or (ii) the contract is terminated.

Contractors are prohibited from using CBI obtained during the performance of the contract for any purpose other than the completion of tasks under that contract.

**Summary B:**

SSINA stated, “To reduce the risk of CBI being released, EPA should carefully review every question requiring the disclosure of CBI to determine if the Agency truly needs that information to develop appropriate ELGs [Effluent Limitations Guidelines and Standards].”

SMA stated, “We are particularly concerned, however, about requests for proprietary information not relevant to the development of ELGs. EPA should review every question that requires disclosure of CBI and determine whether they are absolutely necessary. Elimination of non-essential questions will mitigate the possibility of unintentional or intentional disclosure of CBI by private contractors assisting EPA on this project.”

**Response B:**

EPA has carefully reviewed the questions included in the Collection of 1997 Iron and Steel Industry Data to ensure that all data requested are relevant to the development of Effluent Limitations Guidelines and Standards. All survey questions are justified in ICR Section 4(b).

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**Subject:** CERTIFICATION STATEMENT

**Comment**

**Numbers:** S1.18.P2, W1.3.P1, W4.16.P1, W4.64.P9

**Commenters:** SMA meeting 11/6/97 (1), (AK Steel) (1), (AISI) (2)

**Summary A:**

SMA asked in their November 6, 1997 meeting with EPA what is the legal requirement for the level of certification on page iii.

AISI commented that, “AISI is not aware of any requirement in Section 308 of the Clean Water Act stating that the submittal of technical and financial information for the development of ELGs must be certified by the participants.”

**Response A:**

EPA Office of General Counsel has reviewed the certification statement and found it to be appropriate for use in this data collection.

**Summary B:**

AISI stated, “The necessity for the certification statements in Parts A and B of the survey is questioned” and “AISI recommends that the certification statement be removed from the questionnaire.”

AK Steel commented that, “The certification statements in Parts A and B are not necessary. This questionnaire is requesting information for possible rulemaking and is not a permit application.”

**Response B:**

Because the Agency will base rulemaking studies largely on survey data, EPA is requiring the signed certification statement to ensure that the submitted data are accurate and complete to the best of the certifying official’s knowledge and belief. Thus, the certification allows EPA reasonably to rely on the data provided by the respondent when developing the Effluent Limitations Guidelines and Standards for this industry.

**Summary C:**

AK Steel stated, “This [certification] requirement should be replaced with the identification of the individual who completed the questionnaire, who could be contacted to obtain clarification, as necessary.”

**Response C:**

EPA requests the identification of contacts in Detailed Survey Questions 1-4 through 1-6 and in Short Survey Question 1-3. Although respondents may, in some cases, have the authority to certify the data provided, the site must determine who is authorized to be the certifying official. See also Response B.

**Summary D:**

AISI further commented that, “Unlike the questionnaire answered in the mid-1970’s, EPA is imposing an elaborate certification procedure in this survey with potential penalties for incorrect information. As a result, the responder is burdened with the necessity to substantiate historical information which is not always readily available and, in any case, is not relevant to the development of ELGs. If such historical questions are not eliminated entirely, an answer of ‘pre-1950’ should suffice.”

**Response D:**

Some “historical questions,” such as questions regarding the year during which operations first began on site and the age of existing equipment, remain in the revised and updated surveys. EPA needs the data gathered through these questions to evaluate age as a factor for subcategorization.

EPA has eliminated questions asking the respondent to identify the first year during which a particular operation was performed on site even if it was performed with equipment that is no longer operable or on site because the Agency will use responses to Detailed Survey Question 1-7 and Short Survey Question 1-4, as well as to questions related to age of existing equipment in order to evaluate age as a factor for subcategorization.

Data supplied in response to the Collection of 1997 Iron and Steel Industry Data are certified as accurate and complete to the best of the certifying official's knowledge and belief. The General Instructions for each data collection instrument state that respondents may provide best engineering estimates when data are not readily available.

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**Subject:** SITE ID NUMBER

**Comment  
Numbers:** W4.17.P1

**Commenters:** AISI (1)

**Summary:**

AISI commented that, "The survey was unclear as to whether the ID number referred to in the General Instructions [Page iv] will be provided to each facility by the EPA, or whether each facility completing the questionnaire should develop their own ID number."

**Response:**

When EPA administers the survey, the Agency will clearly mark the address label on each survey cover page with a unique site ID number. EPA believes that the General Instructions regarding the site ID number will be clear to respondents because the survey received by each respondent will be marked with a site ID number unique to that site/respondent.

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**Subject:** ACID PICKLING AND ACID CLEANING DEFINITIONS

**Comment  
Numbers:** M3.10.P2, M3.11.P2, W4.34.P4

**Commenters:** (STI) meeting 11/20/97 (2), AISI (1)

**Summary A:**

STI commented in their November 20, 1997 meeting with EPA that the term *acid pickling* implies metal removal (i.e., acid attack on base metal).

**Response A:**

EPA has modified the “acid pickling” definition to explain that this operation involves applying a relatively strong acid solution to remove scale or oxide from the steel surface, and that it is typically conducted after hot forming operations and prior to steel finishing operations.

**Summary B:**

STI commented in their November 20, 1997 meeting with EPA that the term *acid cleaning* implies oxide removal (i.e., lower strength acid attack on surface oxides with little or no attack on base metal).

**Response B:**

EPA has modified the “acid cleaning” definition to explain that this operation involves applying a relatively mild acid solution to remove surface dirt and light oxide coatings, and is typically conducted prior to application of hot dip or electrolytic metal coating and after cold forming and annealing operations.

**Summary C:**

AISI commented, “[for the ‘acid cleaning’ and ‘acid pickling’ definitions] Do EPA’s definitions correctly identify each operation? They appear to be ambiguous and unclear.”

**Response C:**

The “acid pickling” and “acid cleaning” definitions have been clarified and are consistent with industry usage. These definitions will aid site respondents in answering questions asked in Detailed Survey Section 2L (Acid Pickling and Descaling) and 2N (Cleaning and Coating), and Short Survey Section 2B.

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**Subject:** AMMONIA LIQUOR DEFINITION

**Comment  
Numbers:** W4.35.P4

**Commenters:** AISI (1)

**Summary:**

AISI commented that the “[ammonia liquor] definition is superficial. Furthermore, this does not seem to be the place to explain free and fixed ammonia.”

**Response:**

EPA has modified the “ammonia liquor” definition to make it more descriptive, and to eliminate the reference to “free and fixed ammonia.”

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**Subject:** AMMONIA STILL DEFINITION

**Comment**

**Numbers:** W4.36.P4

**Commenters:** AISI (1)

**Summary:**

AISI commented that the “[ammonia still] definition is overly restrictive and precludes treatment of wastewaters other than ammonia liquor.”

**Response:**

EPA has modified the “ammonia still” definition to refer to the treatment of ammonia liquor as well as to the treatment of other ammonia-containing wastewaters.

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**Subject:** ARGON/OXYGEN DECARBURIZATION (AOD) DEFINITION

**Comment**

**Numbers:** M4.3.P2, W3.16.P4

**Commenters:** SSINA meeting 12/4/97 (1), SSINA (1)

**Summary:**

SSINA commented that the definition for AOD was too restrictive and the last sentence should be deleted to more accurately reflect what is done in the mill. “The sentence is more commentary than definitional.”

**Response:**

EPA agrees with SSINA’s comment and has removed the sentence referred to in the comment to make the “argon/oxygen decarburization (AOD)” definition less restrictive.



**Subject:** BLOWDOWN DEFINITION

**Comment**

**Numbers:** S1.20.P2, W3.17.P4, W4.37.P4

**Commenters:** SMA meeting 11/6/97 (1), SSINA (1), AISI (1)

**Summary:**

SMA asked in their November 6, 1997 meeting with EPA if the reference to 2% of recirculating water flow in the definition of “blowdown” had any significance as a standard.

AISI commented that “The [blowdown] definition itself is correct, but high-rate recycle systems can be between 3% and 4%. This sentence should be corrected or deleted.”

SSINA commented that “EPA should retain the first sentence of the [blowdown] definition only. The last two sentences are commentary and should be deleted.”

**Response:**

EPA has modified the “blowdown” definition to remove the reference to discharging 2% of recirculating water flow, and has made additional revisions to further clarify the definition.

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**Subject:** BUTT-WELDED PIPE/TUBE DEFINITION

**Comment**

**Numbers:** M3.4.P2, W2.1.P1, W5.1.P1

**Commenters:** STI meeting 11/20/97 (1), STI (1), (Wheatland)(1)

**Summary:**

Two commenters (STI, Wheatland) remarked that, “Butt-welded pipe and tube can share the same definition: i.e., a continuous strip of steel which is heated, formed into a circular shape, and then welded.”

**Response:**

EPA has replaced the “butt-weld pipe” definition and the “butt-weld tube” definition with a “butt-welded pipe/tube” definition. The new definition is similar to the one suggested by STI and Wheatland.

**Subject:** CARBON STEEL DEFINITION

**Comment  
Numbers:** W4.39.P4

**Commenters:** AISI (1)

**Summary:**

AISI commented that, “The definition of carbon steel should be consistent with the prior definition in 40 CFR 420.71, Subpart G [which defines carbon steel as those steel products other than specialty steel products].”

**Response:**

EPA disagrees. The “carbon steel” definition included in the Detailed and Short surveys is appropriate to the Agency’s current study of the iron and steel industry. EPA referred to The Making, Shaping, and Treating of Steel (William T. Lankford, Jr. *et al.*, ed.)(10th ed. 1985), a reference recommended by several commenters, when developing this definition.

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**Subject:** CLARIFICATION DEFINITION

**Comment  
Numbers:** S1.21.P2, W3.18.P4, W4.38.P4, W6.2.P2

**Commenters:** SMA meeting 11/6/97 (1), SSINA (1), AISI (1), SMA (1)

**Summary:**

SMA commented that, “This [clarification] definition is not consistent with industry usage and is overinclusive. Although settling may unintentionally take place in basins, due to size and recirculation rates, some basins are not designed to remove undissolved materials through settling. EPA should be more specific by adding ‘...in basins designed for settlement.’”

SSINA commented that, “[for the ‘clarification’ definition] SSINA is not aware of any ‘clarification’ that involves the use of filters. Does EPA mean ‘filtration’? EPA should include definitions for ‘clarifier’ and ‘filtration’ in order to resolve this confusion.”

**Response:**

EPA has removed the “clarification” definition. As suggested by SSINA, the Agency has included definitions of “clarifier” and “filtration.”

**Subject:** COLD FORMING DEFINITION

**Comment  
Numbers:** M3.5.P2

**Commenters:** STI meeting 11/20/97 (1)

**Summary:**

STI commented in their November 20, 1997 meeting with EPA that the Agency should include a “cold forming” definition to read, “cold processing using lubricants or chemical solutions and dies and/or mandrels for forming the piece.”

**Response:**

EPA has replaced the “forming” definition with a descriptive “cold forming” definition. This new definition encompasses cold rolling and cold working processes, as described in Materials Science and Engineering: An Introduction (William D. Callister, Jr.)(3rd ed. 1994).

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**Subject:** COLD ROLLING PROCESS DEFINITION

**Comment  
Numbers:** M3.7.P2

**Commenters:** STI meeting 11/20/97 (1)

**Summary:**

STI commented in their November 20, 1997 meeting with EPA that the Agency should revise the “cold rolling process” definition to read, “Cold processing using rolling solutions or dry cold processing where the material is changed in dimensions by processing through rolls that apply mechanical pressure.”

**Response:**

Upon referring to Materials Science and Engineering: An Introduction (William D. Callister, Jr.)(3rd ed. 1994), EPA has removed the “cold rolling process” definition and has included the cold rolling process in the new “cold forming” definition.

**Subject:** COLD WORKING DEFINITION

**Comment  
Numbers:** M3.6.P2

**Commenters:** STI meeting 11/20/97 (1)

**Summary:**

STI commented in their November 20, 1997 meeting with EPA that the Agency should include a “cold working” definition to read, “Cold processing where the shape of the piece is changed, but the overall dimensions are not changed, e.g., a square to a round.”

**Response:**

Upon referring to Materials Science and Engineering: An Introduction (William D. Callister, Jr.)(3rd ed. 1994), EPA included the cold working process in the new “cold forming” definition, and has not included a separate “cold working” definition.

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**Subject:** CONTINUOUS CASTING DEFINITION

**Comment  
Numbers:** S1.22.P3, W3.19.P4, W6.3.P3

**Commenters:** SMA meeting 11/6/97 (1), SSINA (1), SMA (1)

**Summary:**

Two commenters (SSINA, SMA) remarked that the phrase “multiple heats of” should be removed from the Continuous Casting definition. The term continuous casting more appropriately refers to the “continuous” stream of steel, rather than ingots.

**Response:**

EPA agrees with the commenters and has modified the “continuous casting” definition as suggested.

**Subject:** DEEP-WELL INJECTION DEFINITION

**Comment**

**Numbers:** S1.23.P3, W6.4.P3

**Commenters:** SMA meeting 11/6/97 (1), SMA (1)

**Summary:**

SMA commented that, “The [deep-well injection] definition in this survey is too narrow, because it does not include deep-well injection for the sole purpose of storage. The definition is inconsistent with that in 40 CFR 144.3, which defines well injection as ‘the subsurface emplacement of fluids through a bored, drilled, or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension.’”

**Response:**

EPA has modified the “deep-well injection” definition. The modified definition includes the phrase “long-term or permanent disposal,” and is similar to the definition referred to in SMA’s comment.

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**Subject:** ELECTRIC ARC FURNACE DEFINITION

**Comment**

**Numbers:** W3.20.P4, W4.40.P4

**Commenters:** SSINA (1), AISI (1)

**Summary:**

SSINA commented that, “EPA should change this definition to read, ‘A furnace in which steel scraps and other ferrous and non-ferrous materials are melted with electrodes and converted to liquid steel.’”

AISI commented that in the “electric arc furnace” definition “The statement that ‘Molten iron is rarely used in an EAF’ is not necessarily correct.”

**Response:**

EPA has modified the “electric arc furnace” definition. The modified definition is similar to that suggested by SSINA, and does not contain the phrase referred to in AISI’s comment.

**Subject:** GROUND WATER DEFINITION

**Comment  
Numbers:** S1.24.P3, W6.5.P3

**Commenters:** SMA meeting 11/6/97 (1), SMA (1)

**Summary:**

SMA commented that, “This [ground water] definition is not consistent with that of other regulations.”

**Response:**

The “ground water” definition is consistent with 40 CFR 300.5 and Section 101(12) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). This definition is appropriate to the Agency’s current study of the iron and steel industry because some sites within the industry use process wastewater treatment systems to treat contaminated ground water.

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**Subject:** IRONMAKING DEFINITION

**Comment  
Numbers:** M1.7.P3

**Commenters:** AISI meeting 12/12/97 (1)

**Summary:**

AISI commented that the phrase “iron produced” ignores such processes as pigging.

**Response:**

EPA has removed the “ironmaking” definition because EPA believes that members of the iron and steel industry do not need a definition of this term to complete the survey. Ironmaking includes any process used to make iron, including pigging.

**Subject:** LIME DEFINITION

**Comment  
Numbers:** W3.21.P5

**Commenters:** SSINA (1)

**Summary:**

SSINA commented that, "EPA's [lime] definition fails to account for magnesium hydroxide or 'mag lime.' The term 'lime' should include references to calcium and magnesium hydroxide."

**Response:**

EPA does not agree that "mag lime" should be included in the "lime" definition. The Agency has included the definition of "lime" because survey questions provide "lime" as a given response option. If a respondent must indicate "mag lime" as a response to a question, he or she may do so by checking the box for "other" and specifying "magnesium hydroxide."

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**Subject:** MELT SHOP DEFINITION

**Comment  
Numbers:** S1.19.P2, S1.25.P3, W3.22.P5, W6.6.P3

**Commenters:** SMA meeting 11/6/97 (2), SSINA (1), SMA (1)

**Summary:**

SMA commented in their November 6, 1997 meeting with EPA that the definition of "melt shop" in Question 2G-4 is different than in the definitions section.

SMA also commented that, for the "melt shop" definition, "Many mini-mills have only one furnace."

SSINA commented that, "EPA should refrain from defining 'melt shop.' Every mill in the industry is configured differently. Any attempt to define melt shop will exclude some people the Agency did not intend to exclude and will only serve to confuse those responding to the questionnaire."

**Response:**

EPA agrees with SSINA's comment, and has removed the "melt shop" definition. This removal also resolves the issues raised in SMA's comments.

**Subject:** MICROCLEANLINESS DEFINITION

**Comment  
Numbers:** W3.23.P5

**Commenters:** SSINA (1)

**Summary:**

SSINA commented that the “microcleanliness” definition “does not apply to the iron and steel industry, therefore, EPA should delete this definition.”

**Response:**

Upon referring to The Making, Shaping, and Treating of Steel (William T. Lankford, Jr. *et al.*, ed.)(10th ed. 1985), EPA has modified the “microcleanliness” definition. The modified definition emphasizes the applicability of this term to the iron and steel industry.

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**Subject:** MILL SCALE DEFINITION

**Comment  
Numbers:** M4.4.P3, S1.26.P3, W3.24.P5, W6.7.P3

**Commenters:** SSINA meeting 12/4/97 (1), SMA meeting 11/6/97 (1), SSINA (1), SMA (1)

**Summary:**

SMA commented that, “The [mill scale] definition should include the chemical composition which is  $\text{Fe}_3\text{O}_4$  and  $\text{Fe}_2\text{O}_3$ .”

SSINA commented that, “EPA defines ‘scale’ and merely refers to that definition for ‘mill scale.’”

**Response:**

EPA has removed the “mill scale” definition, modified the “scale” definition, and replaced all survey references to “mill scale” with “scale.” SMA provided no reasoning to support its comment that the “mill scale” definition should include the chemical composition. Therefore, EPA sees no reason to include such a definition now.



**Subject:** PIPE DEFINITION

**Comment  
Numbers:** M3.2.P2

**Commenters:** STI meeting 11/20/97 (1)

**Summary:**

STI commented in their November 20, 1997 meeting with EPA that the Agency should include a “pipe” definition to read “generally heavier wall material, usually measured by inside diameter.”

**Response:**

EPA agrees with STI’s comment, and has included a “pipe” definition similar to that suggested in the comment.

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**Subject:** PLANT SERVICE WATER DEFINITION

**Comment  
Numbers:** S1.27.P3, W6.8.P3

**Commenters:** SMA meeting 11/6/97 (1), SMA (1)

**Summary:**

SMA commented that for the “plant service water” definition, “EPA should clarify whether this is only water from the raw water supply or also includes water blown down from other operations.”

**Response:**

EPA has modified the “plant service water” definition to clearly indicate that plant service water is city, well, or surface water that has not been used elsewhere on site.

**Subject:** PROCESS WASTEWATER DEFINITION

**Comment**

**Numbers:** M4.5.P3, S1.3.P1, S1.13.P2, S1.28.P3, W3.25.P5, W6.9.P3

**Commenters:** SSINA meeting 12/4/97 (2), SMA meeting 11/6/97 (2), SSINA (1), SMA (1)

**Summary A:**

SMA commented that, "It would be simpler to define this term [process wastewater] as 'contact wastewater.' Water used for slag quenching should be excluded from this definition, because slag quenching does not generate run-off. Water used in what is generically termed 'air pollution control devices' should be excluded. The standard air pollution control device in EAF steel mills is water-cooled ductwork which allows no contact with the air. EPA should then specify that only water used in wet scrubbing of air pollution controls, which may come into contact with pollutants, is included."

**Response A:**

EPA has not replaced the term "process wastewater" with the term "contact wastewater." The term "process wastewater" is consistent with effluent guidelines regulatory development within the Agency.

The Agency disagrees that slag quenching should be deleted from the definition. Once water contacts the slag, it is considered process wastewater.

EPA has modified the "process wastewater" definition to clarify that wastewater from only direct-contact air pollution control devices is included. "Water-cooled ductwork" uses noncontact cooling water. The definition states that uncontaminated noncontact cooling water is not considered process wastewater.

**Summary B:**

SSINA commented that, "The Agency should insert the word 'storm water' in the last sentence of [the 'process wastewater'] definition. Thus, the sentence should read, 'Sanitary, storm water, and non-contact cooling water are not considered process wastewater.'"

**Response B:**

EPA does not agree that all storm waters are not considered process wastewater. The Agency has modified the last sentence of the "process wastewater" definition to read: "Sanitary wastewater, uncontaminated noncontact cooling water, and storm water not associated with industrial activity are not considered process wastewater." Storm water associated with industrial activity can contact raw materials, intermediate products, finished products, by-products, or waste products.

**Summary C:**

SSINA asked why equipment wash down water was not included in the definition of “process wastewater” and not included in the Section 2 subsections in questions asking about “other sources” of wastewater.

**Response C:**

EPA has modified the “process wastewater” definition to include “wastewater from equipment cleaning,” and has modified questions regarding “other sources” of wastewater to give “equipment cleaning and washdown water” as a response option.

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**Subject:** RUNOUT TABLE DEFINITION

**Comment**

**Numbers:** W4.41.P4

**Commenters:** AISI (1)

**Summary:**

AISI commented that, “There is a typographical error in this [runout table] definition. The runout table is typically located prior to *coilers* rather than *boilers*.”

**Response:**

EPA has corrected this typographical error.

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**Subject:** SALT BATH DESCALING DEFINITION

**Comment**

**Numbers:** W3.26.P5

**Commenters:** SSINA (1)

**Summary:**

SSINA commented that, “EPA should include the words ‘neutral and acidic salts’ in its [salt bath descaling] definition”.

**Response:**

EPA agrees with SSINA’s comment, and has modified the “salt bath descaling” definition as suggested.

**Subject:** SCALE DEFINITION

**Comment**

**Numbers:** S1.29.P3, W3.27.P5, W6.10.P3

**Commenters:** SMA meeting 11/6/97 (1), SSINA (1), SMA (1)

**Summary:**

Two commenters (SSINA, SMA) remarked that the term “scale” in the steel industry context is the same as “mill scale” and that EPA should reference the “mill scale” definition when defining “scale.” SSINA further commented that, “The Agency should change the last word in the [scale] definition from ‘rolled’ to ‘processed.’”

**Response:**

EPA has removed the “mill scale” definition, and has replaced all survey references to “mill scale” with “scale.” EPA has modified the “scale” definition to remove the reference to “rolling.”

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**Subject:** SEAMLESS PIPE DEFINITION

**Comment**

**Numbers:** M3.8.P2

**Commenters:** STI meeting 11/20/97 (1)

**Summary:**

STI commented in their November 20, 1997 meeting with EPA that the Agency should define “seamless tube” and not define “seamless pipe.”

**Response:**

EPA does not agree that the survey should not contain a “seamless pipe” definition. Upon referring to The Making, Shaping and Treating of Steel (William T. Lankford, Jr. *et al.*, ed.)(10th ed. 1985), the Agency included a “seamless pipe/tube” definition.

**Subject:** SEMI-WET AIR POLLUTION CONTROL EQUIPMENT DEFINITION

**Comment**

**Numbers:** S1.30.P4, W6.11.P4

**Commenters:** SMA meeting 11/6/97 (1), SMA (1)

**Summary A:**

SMA commented that, “Although it is the practice of some EAF facilities to use a minimal amount of water vapor or mist to lower the temperature of EAF dust before it enters the baghouse, the industry does not recognize this practice as part of a ‘semi-wet system.’ Rather, ‘semi-wet system’ describes such operations as coke ovens, which are not used in EAF steel production.”

**Response A:**

EPA acknowledges SMA’s comment; however, the “semi-wet” definition included in the surveys has already been defined at 40 CFR 420.41(e), and has been defined as such since the 1982 rulemaking (as amended in 1984). In addition, the Agency is unaware of, and is unable to locate information regarding, semi-wet systems that describe coke oven operations.

**Summary B:**

SMA commented that, “EPA should eliminate the option of a semi-wet system in 2G-15.c and strike question 2G-17 in its entirety.”

**Response B:**

Note: These questions have become Detailed Survey Questions 2G-10.d and 2G-12 due to survey revisions and updates.

EPA has not removed “semi-wet system” from the given list of response options in Question 2G-10.c because this option is an appropriate response to the question.

All parts of Detailed Survey Question 2G-12 are justified in ICR Section 4(b).

**Subject:** SHEET, HOT ROLLED CARBON STEEL DEFINITION

**Comment**

**Numbers:** W4.43.P5, W4.200.P25

**Commenters:** AISI (2)

**Summary:**

AISI commented for both the “sheet, hot rolled carbon steel” definition and Question 2L-6, “If this term [sheet] is to be defined for hot rolling operations, it should also be defined for cold rolling operations.”

**Response:**

EPA has modified the definition of “sheet,” and does not make any specific reference to either hot rolled operations or cold rolled operations.

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**Subject:** SITE DEFINITION

**Comment**

**Numbers:** M1.6.P3, W1.16.P2, W4.42.P5, W4.230.P29

**Commenters:** AISI meeting 10/22/97 (1), AK Steel (1), AISI (2)

**Summary:**

Two commenters (AK Steel, AISI) remarked that the use of the term “site” throughout the survey is ambiguous and not consistent with its definition on page xvi. The commenters were unsure as to whether the term “site” referred to a department or an entire plant. Both suggested that a definition of the term “facility” should be provided so as to distinguish individual departments or operations from the term “site” and avoid confusion when attempting to answer many of the questions.

AISI commented that, “General information is requested by ‘facility’ [in Section 4: Wastewater Outfall Information]. Does ‘facility’ differ from ‘site’?”

**Response:**

EPA has included a definition of “site” in the Definitions section. This definition explains that a site is generally a contiguous physical location at which manufacturing operations related to the iron and steel industry occur. EPA has removed all references to “facility” from the surveys.

**Subject:** SLAG DEFINITION

**Comment  
Numbers:** W3.28.P5

**Commenters:** SSINA (1)

**Summary:**

SSINA commented that, “EPA should remove the word ‘waste’ from the [slag] definition. Slag is not a waste!”

**Response:**

EPA agrees with SSINA, and has replaced the word “waste” with the word “by-product.”

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**Subject:** SPARK DEFINITION

**Comment  
Numbers:** S1.31.P4

**Commenters:** SMA meeting 11/6/97 (1)

**Summary:**

SMA commented at their November 6, 1997 meeting with EPA that they understood the “spark box” definition to be limited to BOF operations because of the reference to “water collection.”

**Response:**

Because EPA has removed the “spark box” definition and all references to “spark box” from the surveys, SMA’s comment is no longer applicable.

**Subject:** STEEL DEFINITION

**Comment**

**Numbers:** S1.32.P4, W3.29.P5, W6.12.P4

**Commenters:** SMA meeting 11/6/97 (1), SSINA (1), SMA (1)

**Summary:**

Two commenters (SSINA, SMA) remarked that, “‘Refined iron’ is not a satisfactory definition [for “steel”], even with the elemental standards attached. Steel is defined generally as ‘hard, tough metal composed of iron alloyed with various small percentages or carbon and often variously with other metals, such as nickel, chromium, manganese, etc. to produce hardness and resistance to rusting’.”

**Response:**

The Agency agrees with the commenters and has modified the “steel” definition. The modified definition is similar to that suggested by SSINA and SMA.

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**Subject:** STRIP, HOT ROLLED CARBON STEEL DEFINITION

**Comment**

**Numbers:** W4.44.P5, W4.206.P26

**Commenters:** AISI (2)

**Summary A:**

AISI commented that, “If the term ‘Strip, Hot Rolled Carbon Steel’ is to be defined for hot rolling operations, it should also be defined for cold rolling operations.”

**Response A:**

EPA has modified the definition of “strip,” and does not make any specific reference to either hot rolled operations or cold rolled operations.

**Summary B:**

AISI also commented that, “Listing two categories of strip [in Question 2M-5] is confusing without definition.”



**Response B:**

Note: This question has become Detailed Survey Questions 2L-7.a and 2N-7.a due to survey revisions and updates.

EPA agrees with AISI's comment, and has modified this question to give one response option for "strips."

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**Subject:** SURFACE WATER DEFINITION

**Comment**

**Numbers:** S1.33.P4, W3.30.P5, W6.13.P4

**Commenters:** SMA meeting 11/6/97 (1), SSINA (1), SMA (1)

**Summary:**

Two commenters (SSINA, SMA) felt that, "Although the [surface water] definition is the same as found in the National Primary Drinking Water Regulations (40 CFR 141.2), the more proper usage is that found in the EPA Administrated Permit: NPDES (40 CFR 122.2) under the term 'waters of the U.S.' We therefore request that the usage be changed."

**Response:**

EPA has modified the "surface water" definition to refer to 40 CFR Part 122.2.

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**Subject:** TAR DEFINITION

**Comment**

**Numbers:** W4.45.P5

**Commenters:** AISI (1)

**Summary:**

AISI commented that, "Pyrites are not derived from tar [as listed in the "tar" definition]. Should it be pyridine?"

**Response:**

EPA has modified the "tar" definition. The modified definition no longer provides the general classes of compounds which may be recovered.

**Subject:** TUBE DEFINITION

**Comment  
Numbers:** M3.3.P2

**Commenters:** STI meeting 11/20/97 (1)

**Summary:**

STI commented in their November 20, 1997 meeting with EPA that the Agency should include a Tube definition to read “generally thinner wall material, usually measured by outside diameter.”

**Response:**

EPA agrees with STI’s comment, and has included a “tube” definition similar to that suggested in the comment.

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**Subject:** WASTEWATER TREATMENT DEFINITION

**Comment  
Numbers:** S1.12.P2, W6.14.P4

**Commenters:** SMA meeting 11/6/97 (1), SMA (1)

**Summary:**

SMA commented that, “Although EPA uses this term [treatment] frequently throughout the survey, the term is not defined in the beginning.”

**Response:**

EPA has included a definition for “wastewater treatment.”

**Subject:** WELDED TUBE DEFINITION

**Comment  
Numbers:** M3.9.P2

**Commenters:** STI meeting 11/20/97 (1)

**Summary:**

STI commented in their November 20, 1997 meeting with EPA that the Agency should develop a “welded tube” definition to include “electrical resistance and induction.”

**Response:**

EPA agrees with the STI’s comment, and has developed an “electric-resistance-welded pipe/tube” definition.

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**Subject:** ZERO DISCHARGE DEFINITION

**Comment  
Numbers:** W4.46.P5

**Commenters:** AISI (1)

**Summary:**

AISI commented that, “This [zero discharge] definition does not agree with the definition of ‘zero discharge facility’ in the draft EPA document ‘Industry Screener Questionnaire for Cooling Water Intake Structures.’ In the latter, a zero discharge facility is one that returns no effluent to surface water. EPA should be consistent in its definitions.”

**Response:**

EPA has replaced the “zero discharge” definition with a “zero discharge or alternative disposal methods” definition. The Agency has also replaced all references to “zero discharge” with “zero discharge or alternative disposal.” Alternative disposal methods, such as contract hauling, may eventually return effluent to surface water (through a centralized waste treatment facility). However, the definition is consistent with the Intake Structures definition on a facility level.

**Subject:** DEFINITIONS

**Comment**

**Numbers:** W1.15.P2, W3.15.P4, W4.14.Pvi, W4.31.P3, W6.15.P4

**Commenters:** AK Steel (1), SSINA (1), AISI (2), SMA (1)

**Summary A:**

SSINA commented that, “EPA has included in the draft questionnaire a number of definitions that either fail to define a term or define a term inaccurately according to industry usage. Rather than attempting to invent its own definitions, SSINA suggests that EPA refer to the book The Making, Shaping and Treating of Steel (William T. Lankford, Jr. *et al.*, ed.)(10th ed. 1985) for accurate definitions of industry terms.”

**Response A:**

EPA has consulted several resources and references, including The Making, Shaping and Treating of Steel (William T. Lankford, Jr. *et al.*, ed.)(10th ed. 1985), when developing the Definitions section. All terms in the Definitions section are completely defined.

**Summary B:**

SSINA commented that, “There were several terms that were not provided in EPA’s draft questionnaire dated August 26, 1997... Because these terms were undefined, SSINA requests that EPA provide Association members with an updated list of definitions as soon as possible so that SSINA may provide additional comments.”

AISI also commented that the definitions section was incomplete and that they would like the opportunity to review the final complete draft prior to its final issuance.

**Response B:**

The ICR package submitted to OMB includes revised and updated surveys (with revised and updated definitions). The public has a 30-day opportunity to comment on the package submitted to OMB, as set forth in the Federal Register notice announcing the submittal.

**Summary C:**

SMA commented that, “In addition to clarification of several definitions, the SMA urges EPA to revise certain survey questions to provide respondents a better idea of what information EPA needs, by using terms in a manner more compatible with industry usage. Revising these questions would save EPA resources that it would have had to spend later answering questions from confused survey respondents.”

**Response C:**

EPA has revised and updated the surveys to consistently use terms compatible with industry usage.

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**Subject:** APPLICABILITY

**Comment**

**Numbers:** M3.27.P3, M4.1.P2, M2.4.P3, S1.14.P2, W3.65.P9, W3.80.P11, W3.95.P12, W3.103.P13, W3.113.P14, W3.126.P15, W3.138.P16, W3.150.P17, W3.164.P18, W3.172.P19, W4.22.P2, W4.24.P3, W4.25.P3, W4.26.P3

**Commenters:** STI meeting 11/20/97 (1), SSINA meeting 12/4/97 (1), SMA meeting 11/6/97 (1), SSINA (10), AISI (4)

**Summary A:**

SMA asked in their November 6, 1997 meeting with EPA why it is necessary for zero dischargers to receive the survey.

**Response A:**

EPA needs information from all plants and processes surveyed, including sites that are “zero dischargers” and sites that practice alternative disposal methods, in order to study candidate technologies for regulatory options. A technology that results in zero discharge from a plant or process may be a candidate for regulatory options. If a plant or process results in zero discharge of process wastewater, the site respondent will incur significantly reduced burden to complete the applicable survey section, since the site respondent will often answer “not applicable” to questions regarding process wastewater.

**Summary B:**

SMA representatives, in their November 6, 1997 meeting with EPA, agreed with the Agency’s goal of incorporating survey responses from all steel mills into the database.

**Response B:**

The Agency has modified the structure of the Collection of 1997 Iron and Steel Industry Data to ensure that the lowest possible burden is placed upon the industry while still capturing information from every site that may be affected by revisions to the Iron and Steel Effluent Limitations Guidelines and Standards.

**Summary C:**

AISI commented that “The survey is unclear as to whether the smaller, non-integrated mills (mini-mills) are to be included in the revised ELGs for iron and steel facilities under 40 CFR Part 420. Furthermore, it is uncertain whether the stand-alone steel finishing operations (which many iron and steel facilities have sold) are to be included in 40 CFR 420, or whether they are more appropriately regulated under the proposed Metal Products and Machinery (MP&M) regulations. Is the questionnaire being sent to the finishing operation operators/companies? How is the EPA determining who is subject to the questionnaire?”

**Response C:**

The Agency is sending either the Detailed Survey or the Short Survey to a census of the industry, which includes all non-integrated sites (mini mills) and all stand-alone steel finishing sites. ICR Section 5(b) discusses the Agency’s collection methodology, lists the segments of the industry to which EPA will administer the surveys, and describes the development of the survey mailing list database.

The Agency will use data from the surveys, as well as data collected through other mechanisms, to determine the appropriate applicability of the revised regulations for the iron and steel manufacturing industry.

**Summary D:**

AISI provided the following comment. “How does EPA plan to address wastewater treatment plants that treat wastewaters generated from other operations not owned by the company operating the WTP [Wastewater Treatment Plant]? There are certain cases when iron and steel treatment facilities, regulated under BAT, treat wastewater or groundwater from contaminated sites (i.e. remediation projects). EPA should ensure that there will be provisions for a credit or an allowance to the final effluent limitations in addition to the BAT calculated number. EPA should recognize this in their policies and allow additional effluent limitations such as ‘Best Engineering Judgement’ (BEJ) or ‘Best Professional Judgement’ (BPJ) calculations for these conditions.”

**Response D:**

EPA has modified the instructions for all questions regarding wastewaters generated off site to request data for only off-site locations that are under separate ownership. The Agency will evaluate these data and further address AISI’s comment at the time of proposal of revised guidelines and standards.

**Summary E:**

AISI also provided the following comment. “How does EPA plan to address storm water and non-categorical process water discharges to existing treatment systems? AISI

recommends that EPA recognize these types of water sources and provide a credit (BEJ or BPJ) for them in the ELGs.”

**Response E:**

EPA has included questions regarding the discharges referred to in AISI’s comment. The Agency will evaluate the data gathered through these questions, and will further address this comment at the time of proposal of revised guidelines and standards.

**Summary F:**

STI commented in their November 20, 1997 meeting with EPA that, “This section [4B] should be limited to process wastewater outfalls only and not include storm water outfalls.”

**Response F:**

EPA has modified Section 4B. The modified section requests data regarding storm water associated with industrial activity because the Agency considers this type of storm water to be process wastewater. Storm water associated with industrial activity can contact raw materials, intermediate products, finished products, by-products, or waste products.

**Summary G:**

Several survey questions ask the survey recipients to describe all innovative technologies or waste management processes implemented by the site. SSINA commented that these questions should be deleted stating, “[These questions are] inappropriate for this questionnaire because they address non-contact water and storm water. The questions do not apply to process wastewater and, therefore, are not germane to the development of ELGs.”

**Response G:**

The Agency considers contaminated noncontact cooling water and storm water associated with industrial activity to be process wastewater. EPA needs data regarding process-specific innovative technologies and waste management practices in order to identify and study the practices being performed in the industry for possible inclusion in proposed regulatory options.

**Subject:** AVAILABLE DATA

**Comment**

**Numbers:** M1.9.P3, M5.6.P2, M5.7.P2, S1.1.P1, W1.12.P2, W1.69.P5, W3.8.P2, W3.185.P2, W4.3.Piv, W4.21.P2, W4.33.P3, W4.231.P29

**Commenters:** AISI meeting 10/22/97 (1), AISI meeting 12/12/97 (3), AK Steel (2), SSINA (2), AISI (4)

**Summary:**

Three commenters (AK Steel, SSINA, AISI) felt that the survey was requesting data that were already available to EPA through the PCS database, DMRs, or permit applications. The commenters felt that it was redundant and overly burdensome to resubmit these data.

AISI commented in their December 17, 1997 meeting with EPA that monthly DMR data is available on Form 3320 (submitted to permit authorities) and on Form 2C (submitted with NPDES permit applications). They went on to further comment that AISI members do not want to regenerate data which the Agency already has.

**Response:**

EPA is administering the Collection of 1997 Iron and Steel Industry Data because the sources suggested by AK Steel, SSINA, and AISI cannot provide EPA with the complete and up-to-date, industry-wide, site-specific data essential to the revision of the Iron and Steel Effluent Limitations Guidelines and Standards. ICR Section 3(a) discusses the Agency's efforts to ensure that the surveys do not request data and information currently available through less burdensome mechanisms.

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**Subject:** QUESTION 1-1

**Comment**

**Numbers:** W1.17.P2, W3.31.P5, W4.47.P6

**Commenters:** AK Steel (1), SSINA (1), AISI (1)

**Summary A:**

Question 1-1.a requests a site brochure, pamphlet, general description, product list, and/or a readily available map or diagram of the layout of the site.

One commenter (SSINA) believes this question should be deleted because "it does not address issues relevant to the development of ELGs for process wastewater. EPA should replace this question with another one that asks regulated parties to provide a general description of the activities conducted at their facilities."



**Response A:**

This question requests copies of readily available materials regarding the site. The Agency will use the information presented in these materials to supplement information gathered through the survey and through mechanisms other than the survey. For example, the Agency will use site layouts to identify how close process areas are to each other to identify when it may be feasible for water to be reused in another process area. The reviewer of the survey may also use these overview materials to become familiar with the site before reviewing the detailed question responses.

EPA has not replaced this question with the one suggested in SSINA's comment because the Agency does not wish to require that a respondent create a general description if one is not readily available.

**Summary B:**

Question 1-1.b requests companies to identify trade association memberships.

Three commenters (AK Steel, SSINA, AISI) believe that trade association membership is not applicable to ELG development and the question should be deleted.

**Response B:**

EPA wishes to consult with representatives of the iron and steel industry throughout the entire regulatory development process. The Agency has identified and contacted all of the trade associations given in the question (see Section 3(c) for more details on EPA consultations related to the ICR). The Agency wishes to identify all other associations representing the iron and steel industry for future outreach activities.

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**Subject:** ATTACHMENT CHECKLIST

**Comment**

**Numbers:** W3.10.P2

**Commenters:** SSINA (1)

**Summary:**

SSINA commented that, "EPA also should include a 'checklist' of documents which should be attached to the completed questionnaire. This would help both EPA staff and facility personnel know whether all the required documents have been provided."

**Response:**

EPA has modified the Detailed Survey General Instructions to include a brief list of materials which may be included as attachments to the survey.

Several survey questions provide respondents with the option of attaching already prepared or readily available data or descriptions in lieu of providing a response on the survey form (e.g., Detailed Survey Question 2F-9). Each of these questions include instructions to help respondents indicate that attachments were included with the survey.

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**Subject:** QUESTION 1-7

Note: This question has become Detailed Survey Question 1-5 and Short Survey Question 1-3 due to survey revisions and updates.

**Comment**

**Numbers:** W3.32.P6, S1.15.P2

**Commenters:** SSINA (1), SMA meeting 11/6/97 (1)

**Summary:**

Question 1-7 requests information about the contacts at the parent company for information included in the survey.

One commenter (SSINA) believes this question should be deleted because it does not address issues relevant to the development of ELGs for process wastewater. ELG information is best provided by the facility's technical personnel.

During a trade association (SMA) meeting, it was recommended that EPA rephrase this question to get the central point of contact at the company, if any, for this rule. This person may or may not work at the corporate/parent company level.

**Response:**

EPA needs the information requested in this question in order to contact responsible individuals for issues related to this rulemaking effort.

EPA agrees with SMA's comment, and has modified this question to request information regarding "central points of contact at your company for issues related to this rulemaking effort." For additional clarification, the question includes this statement: "These central points of contact may or may not be at the corporate headquarters or parent company level."

**Subject:** QUESTION 1-9

**Note:** This question has become Detailed Survey Question 1-8 due to survey revisions and updates.

**Comment**

**Numbers:** W3.34.P6, W6.19.P5

**Commenters:** SSINA (1), SMA (1)

**Summary:**

Question 1-9 asks: Check **ALL** sources of water at your site for each water use indicated. This is requested for water used in the process, water used as noncontact water, and water used for potable water.

One commenter (SMA) suggests that “the purpose of the survey is to aid the EPA in developing ELGs. Therefore, requests for information concerning the source of water in Question 1-9 are irrelevant and should be stricken.”

Another commenter (SSINA) believes “this question should be modified. First, EPA should insert the word ‘process’ in the first line. The first line should read ‘check all sources of process water at your site for each water use indicated.’ Second, EPA should strike the columns on noncontact cooling water and potable water and only keep the column on process water.”

**Response:**

EPA needs the information requested in this question in order to identify how sites use purchased water and to evaluate if site water conservation practices may result in reduced costs. At some sites, noncontact cooling water and potable water may eventually be used as sources of water addition for manufacturing processes. The original source of water will be a factor considered when determining the amount of water that can be recycled or reused in the regulatory options.

EPA has not made the revisions suggested in SSINA’s comment because the revised question would not request all of the information needed by the Agency.

**Subject:** QUESTION 1-11

Note: This question has become Detailed Survey Question 1-9 and Short Survey Question 1-5 due to survey revisions and updates.

**Comment**

**Numbers:** W3.35.P6, W4.48.P6

**Commenters:** SSINA (1), AISI (1)

**Summary A:**

Question 1-11 requests (a) does your site have an NPDES permit which includes the discharge of process wastewaters, (b) what types of waters are regulated, and (c) provide information about the receiving water and about the permit.

One commenter (SSINA) suggests that parts a and b should be deleted because they do not address issues relevant to the development of ELGs for process wastewater, and part c should become Question 1-11.a.

**Response A:**

Note: Part (a) referred to in the comment has become Detailed Survey Question 1-9.b and Short Survey Question 1-5.b. Part (b) referred to in the comment has become Detailed Survey Question 1-9.c.

Detailed Survey Question 1-9.b and Short Survey Question 1-5.b, which the respondent will answer by checking a box, is a burden-reducing “screener” question that directs respondents who check “no” to skip to the next question.

Detailed Survey Question 1-9.c requests the types of waters regulated by the permit. EPA needs to identify each type of water in order to consider it for regulation.

**Summary B:**

One commenter (AISI) suggests that sanitary wastewaters discharged through an NPDES permit should be added to the types of wastewaters listed in part b.

**Response B:**

EPA agrees with AISI’s comment and has modified Detailed Survey Question 1-9.c to provide “sanitary wastewater” as a response option.

**Subject:** QUESTION 1-12

Note: This question has become Detailed Survey Question 1-10 and Short Survey Question 1-6 due to survey revisions and updates.

**Comment**

**Numbers:** W1.18.P2, W3.36.P6, W4.49.P6, W4.50.P6, W4.51.P6, M4.6.P3, S1.5.P1

**Commenters:** AK Steel (1), SSINA (1), AISI (3), SSINA meeting 12/4/97 (1), SSINA meeting 12/4/97 (1)

**Summary A:**

Question 1-12 asks whether the site has a POTW-written permit which includes the discharge of process wastewater, requests information about the POTW and the permit, and asks whether there are surcharges from the POTW when pollutant concentration or loading thresholds are exceeded. If there are surcharges, the question requests information about these surcharges.

One commenter (SSINA) suggests that the entire question should be deleted because “the questions do not address issues relevant to the development of ELGs for process wastewater”.

**Response A:**

EPA disagrees with SSINA’s comment. Each part of Detailed Survey Question 1-10 and Short Survey Question 1-6 is justified in ICR Section 4(b).

**Summary B:**

Two commenters (AK Steel, AISI) state that “the POTW’s NPDES permit number should not be a concern of the industrial user and this question should be removed.”

**Response B:**

EPA acknowledges AK Steel’s and AISI’s comment, and has requested this information only if it is readily available to the respondent. The Agency needs the number in order to examine the POTW’s NPDES permit for additional technical data.

**Summary C:**

One commenter (AISI) suggests that if a facility indicates in part a that it does not have a POTW permit, it should not be required to provide the additional data requested in 1-12.b and c.

**Response C:**

Even if a permit is not in place, the Agency needs information regarding any discharges that the POTW receives from the site.

The Agency has, however, structured Detailed Survey Question 1-10 and Short Survey Question 1-6 with skip patterns to ensure that the respondent can pass additional questions if the site does not discharge to a POTW.

**Summary D:**

Two commenters (AK Steel, AISI) also state that “the amount of surcharges paid to the POTW is not relevant and this question should be removed”.

**Response D:**

The Agency needs this information because it is possible that revised effluent limitations might result in lower wastewater generation or the lowering of pollutant levels in the effluent such that POTW fees would be reduced or avoided. If so, the site would experience a cost savings on these fees. The cost savings to the site is also a revenue loss to the POTW. Because a loss in POTW revenue might affect local government, EPA must analyze the effects of this loss to respond to the provisions of the Unfunded Mandates Reform Act (UMRA).

**Summary E:**

During a trade association (SSINA) meeting, it was suggested that EPA should ask for both the base service charge for sewer discharges plus any surcharges over and above the base service charge. In addition, the term “surcharge” should be well defined.

**Response E:**

EPA agrees with SSINA’s comment, and has modified Detailed Survey Question 1-10 to capture base service charges and charges over and above this base charge. The modified question, however, does not use the word “surcharge.”

**Subject:** QUESTION 1-13

Note: This question has become Detailed Survey Question 1-11 and Short Survey Question 1-6 due to survey revisions and updates.

**Comment**

**Numbers:** W1.19.P2, W3.37.P6, W4.52.P6, W4.53.P6, S1.6.P1

**Commenters:** AK Steel (1), SSINA (1), AISI (2), SSINA meeting 12/4/97 (1)

**Summary A:**

Question 1-13 asks whether the site has a PrOTW-written permit which includes the discharge of process wastewater, requests information about the PrOTW and the permit, and asks whether there are surcharges from the PrOTW when pollutant concentration or loading thresholds are exceeded. If there are surcharges, the questions request information about these surcharges.

One commenter (SSINA) suggests that the entire question should be deleted because “the questions do not address issues relevant to the development of ELGs for process wastewater.”

**Response A:**

EPA disagrees with SSINA’s comment. Each part of Detailed Survey Question 1-11 and Short Survey Question 1-6 is justified in ICR Section 4(b).

**Summary B:**

Two commenters (AK Steel, AISI) state that “the NPDES permit number of the PrOTW is not relevant and should be removed.”

**Response B:**

EPA acknowledges AK Steel’s and AISI’s comment, and has requested this information only if it is readily available to the respondent. The Agency needs the number in order to examine the PrOTW’s NPDES permit for additional technical data.

**Summary C:**

Two commenters (AK Steel, AISI) state that “the amount of surcharges paid to the PrOTW is not relevant and should be removed.”

**Response C:**

The Agency needs this information because it is possible that revised effluent limitations might result in lower wastewater generation or the lowering of pollutant levels in the effluent such that PrOTW fees would be reduced or avoided. If so, the site would experience a cost savings on these fees. The cost savings to the site is also a revenue loss to the PrOTW.

**Summary D:**

During a trade association (SSINA) meeting, it was suggested that EPA should ask for both the base service charge for sewer discharges plus any surcharges over and above the base service charge. In addition, the term “surcharge” should be well defined.

**Response D:**

EPA agrees with SSINA’s comment, and has modified Detailed Survey Question 1-11 to capture base service charges and charges over and above this base charge. The modified question, however, does not use the word “surcharge.”

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**Subject:** QUESTION 1-14

Note: This question has become Detailed Survey Question 1-13 due to survey revisions and updates.

**Comment**

**Numbers:** W3.38.P6, W6.16.P5

**Commenters:** SSINA (1), SMA (1)

**Summary:**

Question 1-14 asks the site to identify practices used for the disposal of noncontact cooling waters.

One commenter (SSINA) believes that this question should be deleted because it does not address issues relevant to the development of ELGs for process wastewater.

One commenter (SMA) suggests that this question “should provide a category for recycling noncontact cooling waters from unit to unit, so that EPA can make a better determination of the quantity of water recycled.”



**Response:**

EPA needs the information requested in this question in order to identify best management practices for disposing of these waters, and in order to identify sites that discharge noncontact cooling water (i.e., dilution flows) to surface waters, POTWs, and PrOTWs.

The Agency has not made the revision suggested in SMA's comment because this question is primarily concerned with the disposal of noncontact cooling water. Question 1-13 does, however, give a response option for "Other (describe)" under "Zero discharge or alternative disposal methods." The respondent may enter information regarding the unit-to-unit recycling of noncontact cooling waters into this area.

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**Subject:** QUESTION 1-15

**Comment**

**Numbers:** W3.39.P6

**Commenters:** SSINA (1)

**Summary:**

Question 1-15 requests (a) does your site have an NPDES permit which includes the discharge of noncategorical wastewaters, (b) what types of waters are regulated, and (c) provide information about the receiving water and about the permit.

One commenter (SSINA) believes this question should be deleted because it does not address issues relevant to the development of ELGs for process wastewater.

**Response:**

EPA has removed this question, as suggested in SSINA's comment.

**Subject:** QUESTION 1-17

Note: This question has become Detailed Survey Question 1-15 due to survey revisions and updates.

**Comment**

**Numbers:** W3.40.P6

**Commenters:** SSINA (1)

**Summary:**

Question 1-17 asks the respondent about the use of “the water bubble” provision in 40 CFR 420.03. The commenter (SSINA) believes that this question should be deleted because it does not address issues relevant to the development of ELGs for process wastewater.

**Response:**

The “water bubble” rule is defined at 40 CFR 420.03 as part of the current rule regulating discharges from iron and steel operations, and Detailed Survey Question 1-15 contains a discussion adapted from this citation. Each part of Detailed Survey Question 1-15 is justified in ICR Section 4(b).

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**Subject:** QUESTION 1-20

Note: This question has become Detailed Survey Question 1-18 due to survey revisions and updates.

**Comment**

**Numbers:** W3.41.P6, W4.54.P7, M3.12.P2

**Commenters:** SSINA (1), AISI (1), STI meeting 11/20/97 (1)

**Summary A:**

Question 1-20 asks respondents to identify types of steels produced and/or processed on site and the types of alloying elements used.

One commenter (SSINA) suggests that “there should be a *de minimis* level for metals of one percent.”

One commenter (AISI) states, “The identification of alloying elements is not relevant to the development of ELGs, as there are no typical alloys that are used at any given facility. Effluent metals content should be obtained from effluent sampling.”

During a trade association (STI) meeting, it was discussed that EPA needs to better define concentrations of alloying elements in terms of standard industry classification. Members asked whether this question pertained only to integrated and non-integrated mills (i.e., makers of molten steel), or to all users of steel?

**Response A:**

EPA has removed all requests for alloying information from this question. This removal resolves the issues raised in SSINA's and STI's comments.

EPA does not agree with AISI's comment. Process-specific subsections of Section 2 contain questions which request the identification of alloying elements added to the process during 1997. EPA needs this information in order to identify sources of potential pollutants of concern in waste streams and in order to transfer wastewater characterization data from one site to another.

**Summary B:**

One commenter (AISI) states that the "definition of carbon steel used in the question is not consistent with prior definitions of carbon steel."

**Response B:**

EPA agrees with AISI, and has modified the question to include a definition of carbon steel consistent with that in the Definitions section.

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**Subject:** QUESTION 1-21

Note: This question has become Detailed Survey Question 1-19 and Short Survey Question 1-8 due to survey revisions and updates.

**Comment**

**Numbers:** W1.20.P2, W2.2.P1, W2.8.P2, W2.13.P2, W3.42.P7, W4.55.P7, W5.2.P1, W5.8.P1, W5.13.P2, M3.13.P3, M3.14.P3

**Commenters:** AK Steel (1), STI (3), SSINA (1), AISI (1), Wheatland (3), STI meeting 11/20/97 (2)

**Summary A:**

Question 1-21 asks respondents to indicate for each process operation the number of units at the site which were in operation during all or part of 1997.

Two commenters (AK Steel, AISI) suggest that “another column should be added to indicate whether there is any water discharge associated with the sub-process. If there is none, then the section for that sub-process would not have to be completed.”

**Response A:**

EPA has modified the question, but has not made the revision suggested in this comment. EPA requires information from all plants and processes surveyed, including those that are “dry,” to study candidate technologies for regulatory options. A technology that results in a dry plant or process may be a candidate for regulatory options. If a plant or process is dry, the site respondent will incur significantly reduced burden to complete the applicable survey section, since the site respondent will often answer “not applicable” to questions regarding process wastewater.

**Summary B:**

A commenter (SSINA) suggests that “EPA should modify this question. The column requesting the ‘number of units operating during 1997’ should be deleted. A more appropriate alternative is for EPA to request that industry check a box indicating whether that process exists or does not exist at a facility.”

**Response B:**

The site respondent is asked to complete a Section 2 subsection to correspond with each operable unit on site. EPA has modified the question to request the number of operable units on site (the question contains a definition of “operable unit”) and to request the number of units operated during 1997 in order to ensure that the appropriate number of Section 2 subsections are completed.

**Summary C:**

SSINA also commented, “EPA should combine the ‘vacuum degassing’ and ‘ladle metallurgy (and other refining process)’ categories because both processes are examples of refining processes.

**Response C:**

EPA has not combined these categories in Detailed Survey Question 1-19 because each category directs the site respondent to a separate Section 2 subsection. Because the Agency anticipates that the vacuum degassing process will have process wastewater associated with it and the ladle metallurgy process typically will not, EPA has organized questions regarding these processes into separate sections to reduce respondent burden.

**Summary D:**

SSINA stated, “EPA must clarify the ‘utility operations’ category. Specifically, EPA should clarify the scope of ‘water pretreatment.’” Another commenter (AISI) also adds, “does the term ‘water pretreatment’ refer to process operation or boiler feedwater?”

**Response D:**

EPA has modified the “utility operations” category in Detailed Survey Question 1-19 to read “On-Site Utility Operations (see Section 2P for clarification).”

EPA has replaced the “water pretreatment” category in Detailed Question 1-19 with an “intake water pretreatment” category. Detailed Survey Section 2P explains that intake water pretreatment systems treat water prior to use in manufacturing processes or steam or power generation.

**Summary E:**

SSINA stated, “It is unclear what processes are included in ‘steam generation.’ Does this category include backup and stationary generators? Does this process include backup, stationary, and diesel power generators?”

**Response E:**

EPA has modified the instructions for Detailed Survey Section 2P to explain that the “steam generation” process category does include backup, stationary, and diesel power generators.

**Summary F:**

One commenter (SSINA) suggests that “EPA should not distinguish between cold rolling processes, therefore, the ‘tandem’ and ‘temper’ mills distinction should be eliminated. [The commenter] (SSINA) can assist EPA in revising this question.”

**Response F:**

EPA agrees with SSINA’s comment, and has modified the question as suggested in the comment.

**Summary G:**

Two commenters (STI, Wheatland) wrote that “under hot forming pipe and tube mills, ‘electrical weld resistance’ is a cold worked pipe and tube process and should be replaced by ‘continuous butt weld.’” Another commenter (AISI) suggested that “butt-welded pipe and tube” should be included under the hot formed pipe and tube category.

**Response G:**

EPA agrees with the commenters, and has replaced “Electrical weld resistance” with “Butt-welding mills” under the “Hot Forming Pipe and Tube” category.

**Summary H:**

Two commenters (STI, Wheatland) also noted that Section 2L - Cold Forming is designated as “2M” and Section 2M- Surface Treatment and Annealing is designated as 2N.

**Response H:**

EPA has corrected these errors in the modified question.

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**Subject:** PROCESS FLOW DIAGRAMS

**Comment**

**Numbers:** W1.10.P1, W1.13.P2, W3.7.P2, W3.43.P7, W3.66.P9, W3.81.P11, W3.96.P12, W3.104.P13, W3.114.P14, W3.127.P13, W3.139.P16, W3.151.P17, W3.165.P18, W3.174.P19, W3.180.P20, W4.5.Piv, W4.18.P1, W4.56.P7, W4.83.P11, W4.94.P12, W4.103.P13, W4.125.P16, W4.133.P17, W4.147.P18, W4.161.P20, W4.170.P21, W4.178.P22, W4.186.P23, W4.197.P25, W4.216.P27, W6.31.P6, M4.10.P3, M5.9.P3

**Commenters:** AK Steel (2), SSINA (13), AISI (15), SMA (1), SSINA meeting 12/4/97 (1), AISI meeting 12/12/97 (1)

**Summary A:**

Throughout the survey, EPA requests survey respondents to provide process flow diagrams (PFDs) showing product development, manufacturing processes, wastewater treatment systems, and outfall locations.

One commenter (SMA) says: “EPA asks survey respondents to produce PFDs for the various component processes such as melting in the EAF, refining in the ladle metallurgy station, and casting. This would be unduly burdensome on steel companies and yet will not provide much assistance to EPA.”

**Response A:**

A PFD presents a significant amount of technical data in a simple visual representation; however, EPA has tried to minimize the respondent burden by limiting the amount of data requested on the PFD. For example, information that is requested in separate questions (e.g., flow rates) are not required to be included on the PFD. EPA needs PFD(s) in order

to understand processes and associated waste streams, and in order to understand how they fit together across the manufacturing process subsections. Respondents do not have to create new PFDs if existing diagrams contain the information required by the Agency.

#### **Summary B:**

Two commenters (AK Steel, AISI) state that some steel companies may not possess all of the PFDs requested in the questionnaire. In such cases, it was unclear whether they are expected to generate these drawings. Should a sentence be added, stating “if the PFDs exist, they should be included with the questionnaire”? If EPA is expecting that each facility will generate PFDs, this effort will add to the time and expenses required to complete the questionnaire.

#### **Response B:**

EPA is requesting that sites create PFDs if they are not readily available. The Agency’s estimate of survey burden, which is presented in ICR Section 6, recognizes the industry time and costs associated with creating PFDs in response to all questions requesting them. Respondents do not have to create new PFDs if existing diagrams contain the information required by the Agency.

#### **Summary C:**

One commenter (AK Steel) asks: “Why should we be required to provide details in the questionnaire when a single drawing could furnish a better answer?” Much of the information requested by the survey is best presented on PFDs. “The option of submitting a drawing in lieu of completing questions on individual units (such as 2M-10) should be made available.”

#### **Response C:**

Although a PFD presents a significant amount of technical data in a simple visual representation, EPA has limited the amount of data requested on the PFD. EPA cannot gather all of the information necessary to review Iron and Steel Industry ELGs through PFDs, but the Agency has formatted each survey question to request data in the least burdensome way. All survey questions are justified in ICR Section 4(b).

#### **Summary D:**

One commenter (SSINA) suggests that EPA should require facilities to provide only one PFD for the entire questionnaire rather than a diagram for each specific section. Each individual question requesting PFDs should be deleted.

Two commenters (AK Steel, AISI) state that submittal of existing drawings or schematics in any format or size should be permitted. It is not practical to require conversion of existing drawings to the example format, nor is it practical to develop new materials. The

commenters recommend that EPA allow the submittal of existing drawings, prints, sketches, etc., to fulfill this requirement.

SMA states, “A typical EAF steel making facility has one diagram that sufficiently describes its entire water use program. The [commenter] recommends that EPA require one master PFD, as requested in question 1-22, unless the size and complexity of the facility's water use program render it necessary to use additional PFDs.”

#### **Response D:**

Respondents may provide existing diagrams in response to questions requesting PFDs provided these existing diagrams include the required information. All questions which request PFDs contain the following statement: “You are **NOT** required to create a new PFD if an existing diagram will suffice.” It is also expected that respondents may have a small number of PFDs which represent the entire site. If this is the case, the respondents only need to identify which PFD contains the manufacturing process to which they are responding.

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**Subject:** PROCESS SHUTDOWNS/STARTUPS

#### **Comment**

**Numbers:** W1.8.P1, W3.44.P7, W3.63.P9, W3.64.P9, W3.78.P11, W3.79.P11, W3.93.P12, W3.94.P12, W3.101.P13, W3.102.P13, W3.111.P14, W3.112.P14, W3.124.P15, W3.125.P15, W3.136.P16, W3.137.P16, W3.148.P17, W3.149.P17, W3.162.P18, W3.163.P18, W3.170.P19, W3.171.P19, W4.6.Pv, W4.57.P7, W4.82.P11, W4.93.P12, W4.102.P13, W4.124.P16, W4.132.P16, W4.146.P18, W4.160.P20, W4.169.P21, W4.185.P23, W4.196.P25, W4.204.P25, W4.215.P27, W6.23.P6, M3.15.P3, M5.10.P3

**Commenters:** AK Steel (1), SSINA (21), AISI (14), SMA (1), STI meeting 11/20/97 (1), AISI meeting 12/12/97 (1)

#### **Summary:**

Four commenters (AK Steel, SSINA, AISI, SMA) say that questions about anticipated future shutdowns and startups are irrelevant and should be dropped. Commenters will not predict what operations will be shut down in five years; information on shutdowns is sensitive and protected information, and not relevant to ELG development. Accurate and reliable information related to anticipated modifications and shutdowns over the next 5 years cannot be provided. Furthermore, if such information were available and were made public knowledge, competitive disadvantages and problems with the unions could result. It is not reasonable for EPA to request information in this survey that cannot or need not be used in the development of ELGs.



During a trade association (STI) meeting, members suggested modifying Question 1-23.b to ask whether changes in process operations are either very likely, likely, or unlikely over the next five years.

**Response:**

EPA needs the information requested in these questions in order to characterize the industry and identify trends that may impact the current rulemaking effort, as well as to identify sites which may initiate processes that will fall under the regulations of the Iron and Steel Industry Effluent Limitations Guidelines and Standards. The Agency recognizes that the industry is sensitive to providing information on any future projects unless they are publicly announced. As stated in the survey Introduction, respondents may claim as confidential all information included in the response to a question by checking the Confidential Business Information (CBI) box next to the question number.

EPA has modified these questions to request only information that has been publicly announced, but has not made the revision suggested in STI's comment.

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**Subject:** OPTIONS FOR SKIPPING QUESTIONS

**Comment**

**Numbers:** W1.47.P4, W3.13.P3, W3.14.P3, W3.45.P7, W3.97.P13, W3.169.P18, W4.27.P3, M4.2.P2

**Commenters:** AK Steel (1), SSINA (5), AISI (1), SSINA meeting 12/4/97 (1)

**Summary A:**

EPA is encouraged (by SSINA and AISI) to consider providing an option on the survey so that if a plant or a process is dry, the appropriate survey section could be skipped. In general, one of the first questions that should be asked for each process is whether there are any water/wastewater discharges or if the following activity generates process wastewater. If yes, continue; if no, stop. EPA would be requiring a facility to respond only to those questions related to its processes that generate contaminated process wastewater, thereby reducing the significant paperwork burden imposed on the industry by this questionnaire.

One commenter (AK Steel) asked specifically, if there is no water involved in the ladle metallurgy process (Section 2I), does this section need to be completed?

One commenter (SSINA) suggests that "for Question 2N-2 (utility operations), if the process does not generate process wastewater, a facility should not be required to answer this question."

The commenter (SSINA) also suggested that “the Agency also should request whether a facility’s operations use process water that directly contacts the iron and steel making operations and materials. SSINA understands that this process water may be consumed or recycled and never discharged. However, the Association believes strongly that facilities with dry or non-contact wet operations are not appropriate candidates for completing the questionnaire or providing useful information for the development of ELGs. Therefore, the questionnaires’ first page should elicit responses that indicate whether a facility is required to complete the questionnaire (and appropriate sections thereof) or whether it should stop and return an initial form to EPA indicating that they are not a facility that will be impacted by or contributing to the development of ELGs.”

**Response A:**

EPA needs information from all plants and processes surveyed, including those that are “dry,” in order to study candidate technologies for regulatory options. If a plant or process is dry, the site respondent will incur significantly reduced burden to complete the applicable survey section, since the site respondent will often answer “not applicable” to questions regarding process wastewater.

**Summary B:**

One commenter (SSINA) suggests that Question 2H-1.a under vacuum degassing should be deleted. “Because noncontact cooling water (NCCW) is used in many circumstances, it should not be requested for those instances where only NCCW is used; this would be burdensome.”

**Response B:**

Note: This question has become Detailed Survey Question 2H-1.b due to survey revisions and updates. This question requests the site designation of the vacuum degassing process. EPA will use this site designation for identification purposes.

Detailed Survey Section 2H is explained and justified in ICR Section 4(b). EPA needs information requested in this section because water used in the vacuum degassing process falls under the scope of the Agency’s definition of process wastewater.

**Summary C:**

One commenter (SSINA) suggests that “EPA’s only focus for the 308(b) questionnaire should be on iron and steel manufacturing processes that contact and create contaminated process wastewater. Therefore, the Agency should inquire at the beginning of the questionnaire whether a facility falls within the scope of the appropriate standard industrial classification (SIC) codes in major group 33. EPA should list these codes with the appropriate descriptions from the Office of Management and Budget’s (OMB) SIC code manual or the new North American Industrial Classification System and request that facilities check the code(s) that apply to their operations.”

**Response C:**

As described in ICR Section 5(b), the Agency's focus is on every site which may be affected by revisions to Iron and Steel Effluent Limitations Guidelines and Standards. ICR Section 4(a) lists and discusses the SIC codes that describe the facilities in the Agency's survey mailing list database.

Part B of the surveys requests the site SIC codes to evaluate the range of industries potentially affected by the rulemaking and to evaluate if the Small Business Administration's definitions of small business could apply to the Iron and Steel industry. The latter are needed to perform the analyses required by the Regulatory Flexibility Act, as amended by the Small Business Regulatory Enforcement Flexibility Act.

The Detailed Survey and Short Survey Introductions contain certification statements through which the designated official can certify that his or her site does not engage in iron or steel manufacturing, forming, or finishing, or coke manufacturing. Non-iron and steel sites are not required to complete the surveys.

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**Subject:** FIRST YEAR OF PRODUCTION

**Comment**

**Numbers:** W1.6.P1, W1.7.P1, W1.32.P3, W3.33.P6, W3.47.P8, W3.49.P8, W3.69.P10, W3.84.P11, W3.115.P14, W4.4.Piv, W4.58.P8, W4.84.P11, W4.96.P12, W4.104.P13, W4.126.P16, W4.135.P17, W4.149.P19, W4.172.P21, W4.179.P22, W6.21.P5

**Commenters:** AK Steel (3), SSINA (6), AISI (10), SMA (1)

**Summary A:**

Three commenters (AK Steel, SSINA, AISI) remarked that questions asking for a unit's first year of production are not relevant and should be deleted from the survey.

**Response A:**

EPA has not removed the question regarding the year during which operations first began on site (Detailed Survey Question 1-7 and Short Survey Question 1-4), and has not removed Section 2 subsection questions regarding the age of existing equipment. EPA needs the data gathered through these questions in order to evaluate age as a factor for subcategorization as directed by the Clean Water Act.

EPA has eliminated questions that ask the respondent to identify the first year during which a particular operation was performed on site even if it was performed with equipment that is no longer operable or on site.

**Summary B:**

One commenter (SMA) suggested that “Question 2J-1 regarding dismantled casters is irrelevant. EPA should strike the part of the question that asks about inactive or dismantled casters, and ask only: ‘What year did continuous casting first take place on your site?’”

**Response B:**

EPA has removed this question, but has not included the question suggested by SMA; instead, Question 2J-2.b asks the respondent to identify the first year of operation for each operable continuous caster on site. EPA needs the age of each operable continuous caster on site in order to perform several analyses. The Agency will consider the potential impact that process age may have on the feasibility of, or cost associated with, candidate control technologies; the Agency will consider process age as a basis for subcategorization or segmentation of the industrial category; and the Agency will determine if a relationship between process age and wastewater generation exists.

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**Subject:** TREATMENT UNIT AGE

**Comment**

**Numbers:** W3.60.P9, W3.86.P12, W3.105.P13, W3.117.P14, W3.129.P15, W3.133.P15, W3.140.P16, W3.145.P16, W3.152.P17, W3.167.P18, W4.63.P8, W4.70.P9, W4.76.P10, W4.120.P15, W4.136.P17, W4.150.P19, W4.166.P21, W4.187.P23, W4.198.P25, W4.205.P26, W4.225.P28

**Commenters:** SSINA (10), AISI (11)

**Summary A:**

AISI commented that “The necessity of asking the age of treatment units is questioned. EPA should be more concerned with the effectiveness of the treatment units, and not necessarily their age or cost.”

**Response A:**

The Agency will examine information regarding the age of existing treatment units to identify sites to receive the Wastewater Treatment Capital Cost Survey. This survey will be administered to no more than 100 sites that have implemented candidate control technologies considered for regulatory options.

**Summary B:**

Two commenters (SSINA, AISI) felt that questions regarding the age of units should be deleted from the survey.

**Response B:**

EPA has not removed the question regarding the year during which operations first began on site (Detailed Survey Question 1-7 and Short Survey Question 1-4), and has not removed Section 2 subsection questions regarding the age of existing equipment. EPA needs the data gathered through these questions in order to evaluate age as a factor for subcategorization.

EPA has eliminated questions that ask the respondent to identify the first year during which a particular operation was performed on site even if it was performed with equipment that is no longer operable or on site.

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**Subject:** QUESTION 2A-4

**Comment**

**Numbers:** W1.21.P2, W4.59.P8

**Commenters:** AK Steel (1), AISI (1)

**Summary A:**

Question 2A-4 requests that respondents provide the total amount of coke produced (excluding coke breeze) and the operating schedule for the years 1993 to 1997.

Two commenters (AK Steel, AISI) say “the question defines ‘operating days’ but does not specify what ‘operating hours’ means. Is this simply the number of days times 24 hours? Coke ovens operate steadily, although coke pushing is not continuous. The number of hours for these operations is not typically recorded. Requiring both the number of operating days and operating hours is excessive detail.”

**Response A:**

The Agency has removed all questions requesting “operating days” and “operating hours” from the surveys.

EPA will administer a Production Follow-up Question to no more than 100 sites in order to determine the reasonable measure of production for permitting. The Production Follow-up Question will request that sites that have completed the Detailed Survey provide production hours per month for the past five years at each on-site manufacturing process. If it is more convenient for the site, the respondent may instead provide production turns per month and provide the number of hours per turn. The follow-up question will also request that sites that have completed the Short Survey provide monthly production data for calendar years 1993 through 1996.

**Summary B:**

Two commenters (AK Steel, AISI) state, “Furthermore, for coke production especially, the type of tons needs to be defined. Coke production data must be clarified as with or without moisture, with or without breeze.”

**Response B:**

EPA agrees with the commenters, and has modified questions regarding coke production to request data in tons (with moisture, but excluding coke breeze).

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**Subject:** QUESTION 2A-6

**Comment  
Numbers:** W4.61.P8

**Commenters:** AISI (1)

**Summary:**

Question 2A-6 requests that respondents provide the maximum tons of coke produced in one month for the coke plant during the years 1993 to 1997.

One commenter (AISI) states, “when production data are requested for a period of five years, the information should be requested for the past five years of ‘normal’ operation. This would exclude misleading information from periods when conditions were abnormal due to special circumstances such as prolonged labor strikes.”

**Response:**

EPA has removed this question, but has included one question in each Detailed Survey Section 2 subsection that requests production data in tons per month for each month of calendar years 1993 through 1997 (e.g., Detailed Survey Question 2A-4). EPA has not modified this question to include AISI’s suggested revision because EPA needs data from the period 1993 through 1997, regardless of abnormal conditions that may have occurred during this period, in order to evaluate the production basis for the revised rule. As stated in the survey General Instructions, the site respondent may use the Comments page located at the end of the section to clarify or provide additional information regarding any response.

EPA has modified questions that request data from 1997 to read: “If an operable unit or water system was not in operation during 1997, substitute the most recent calendar year when such circumstances did not exist. Note the year of operation and the circumstances in the comments at the end of this section, and provide data from that calendar year.”

**Subject:** OPERATING HOURS

**Comment**

**Numbers:** W3.6.P2, W4.60.P8, W4.74.P10, W4.87.P11, W4.98.P13, W4.107.P14, W4.117.P15, W4.128.P16, W4.137.P17, W4.151.P19, W4.153.P19, W4.164.P20, W4.175.P22, W4.181.P23, W4.188.P23, W4.201.P25, W4.208.P26

**Commenters:** SSINA (1), AISI (16)

**Summary:**

Two commenters (SSINA, AISI) remarked that questions asking for information with respect to operating hours should be revised to ask for the information in terms of tons per shift.

**Response:**

EPA has removed these questions from the surveys.

The Agency has revised the Detailed Survey to request production data in tons per month for each month of calendar years 1993 through 1997, and has revised the Short Survey to request production data in tons per month for each month of calendar year 1997 and in tons per year for each year 1993 through 1996. The Agency will also administer a Production Follow-up Question to no more than 100 sites. This question will request production hours per month for the past five years at each on-site manufacturing process. If it is more convenient for the site, the respondent may instead provide production turns per month and provide the number of hours per turn.

**Subject:** PRODUCTION CALCULATION

**Comment**

**Numbers:** W1.11.P2, W1.28.P3, W1.39.P3, W1.57.P4, W1.58.P4, W3.57.P9, W3.71.P10, W3.87.P12, W3.99.P13, W3.109.P14, W3.120.P14, W3.130.P15, W3.143.P16, W3.154.P17, W4.7.Pv, W4.20.P2, W4.62.P8, W4.88.P11, W4.97.P12, W4.116.P15, W4.152.P19, W4.202.P25, W4.207.P26, M4.7.P3, M5.11.P3

**Commenters:** AK Steel (5), SSINA (9), AISI (9), SSINA meeting 12/4/97 (1), AISI meeting 12/12/97 (1)

**Summary A:**

In a meeting with trade association (SSINA) members, some members suggested that production information being requested was overly burdensome and questioned the utility of the number of questions.

**Response A:**

To reduce respondent burden, the Agency has revised each Section 2 subsection of the Detailed Survey to include one production question requesting data in tons per month for each month of calendar years 1993 through 1997. To further reduce the respondent burden associated with the Short Survey, the Agency requests production data in tons per month for each month of calendar year 1997 and in tons per year for each year 1993 through 1996. The data gathered through these questions will be used to determine a reasonable measure of actual production for use in developing production-based regulatory options.

EPA will administer a Production Follow-up Question to no more than 100 sites to determine the reasonable measure of production for permitting. This follow-up question will request production hours per month for the past five years at each on-site manufacturing process. If it is more convenient for the site, the respondent may instead provide production turns per month and provide the number of hours per turn. EPA needs this information in order to better understand the monthly and daily production variability that can occur in the iron and steel industry. EPA will analyze hourly, monthly (adjusted for hours per month), and annual (adjusted for hours per year) production rates to determine an appropriate production basis to use for calculating permit limitations. These data will also be used to evaluate the type of permit monitoring requirements that are appropriate. EPA has reduced the burden to the industry by targeting this production study to a subset of the industry identified from responses to the Detailed and Short Surveys, rather than requiring all sites to provide this same level of information.



**Summary B:**

(SSINA) members suggested, during a meeting with the Agency, that the maximum daily production values could not be provided since these kind of records are not kept.

**Response B:**

EPA has removed this requirement from all surveys.

**Summary C:**

One commenter (SSINA) suggests that EPA should delete the requirement that facilities provide the tons of steel produced in “one day.”

**Response C:**

EPA agrees with SSINA’s comment, and has removed this requirement from all surveys.

**Summary D:**

The commenters (AK Steel, SSINA, AISI) say that monthly production data are not applicable to ELG development.

**Response D:**

EPA disagrees with the commenters. As discussed in Response A, the Agency has revised each Section 2 subsection of the Detailed Survey to include one production question requesting data in tons per month for each month of calendar years 1993 through 1997. The Short Survey, to place less burden on the respondents, requests production data in tons per month for each month of calendar year 1997 and in tons per year for each year 1993 through 1996. The data gathered through these questions will be used to determine a reasonable measure of actual production for use in developing production-based regulatory options.

**Summary E:**

The commenters (AK Steel, SSINA, AISI) say that EPA is asking for the maximum day and maximum month of production. Does this request imply a change or a continuation of the current methodology for calculating effluent limits?

One commenter (SSINA) questions: Are we to assume that the previous methodology is to be discontinued? If so, the economic impact could be significant. If the rationale for developing effluent limitation guidelines is not to be changed, then the type of production data requested should be revised to reflect the methodology that will be used.

One commenter (AISI) notes that “production data are requested in several forms, including days and hours of operation, monthly tonnage, annual tonnage, and maximum production day. The data request does not comport with the current, acceptable regulatory method of calculating the daily maximum production using the maximum production shift. [The commenter] notes that a methodology change will result in significantly different maximum production values and hence, significantly different ELG factors. Any change to the basis for calculating the effluent limits should result in adjustments to the calculation so that consistency with the current methodology is maintained.” The commenter includes an example of how the method for determining the production basis can affect permit limits.

**Response E:**

Decisions regarding the production basis for the revised regulations have not been made. EPA needs monthly production data for 1993 through 1997 in order to determine a reasonable measure of actual production for use in developing production-based regulatory options.

EPA will analyze hourly, monthly (adjusted for hours per month), and annual (adjusted for hours per year) production rates to determine an appropriate production basis to use for calculating permit limitations. These data will also be used to evaluate the type of permit monitoring requirements that are appropriate.

**Summary F:**

The commenters (AK Steel, SSINA, AISI) say that production data are normally developed in the number of tons per shift.

**Response F:**

The Detailed Survey requests production data in tons per month for each month of calendar years 1993 through 1997, and the Short Survey requests production data in tons per month for each month of calendar year 1997 and in tons per year for each year 1993 through 1996. The Agency will also administer a Production Follow-up Question to no more than 100 sites. This follow-up question will request production hours per month for the past five years at each on-site manufacturing process. If it is more convenient for the site, the respondent may instead provide production turns per month and provide the number of hours per turn.

**Subject:** MONTHLY PRODUCTION

**Comment**

**Numbers:** W1.24.P3, W1.30.P3, W1.36.P3, W1.42.P3, W3.46.P7, W3.58.P9, W3.72.P10, W3.88.P12, W3.121.P14, W3.131.P15, W3.144.P16, W3.155.P17, W4.73.P10, W4.90.P12, W4.111.P14, W4.138.P17

**Commenters:** AK Steel (4), SSINA (8), AISI (4)

**Summary A:**

SSINA commented that, “EPA should delete questions requiring regulated parties to research the maximum tons of steel produced in one day for the 1993-1997 calendar years. This type of production information collection is extremely burdensome, if not impossible, particularly because some facilities only maintain production records on a monthly and annual basis. Because regulated parties keep their records on production rates for the month as may be required under a NPDES permit, EPA should request only monthly totals.”

**Response A:**

To reduce respondent burden, EPA has removed questions requesting daily maximum production and monthly maximum production from the Detailed Survey and Short Survey.

EPA agrees with SSINA’s comment. The Agency has revised the Detailed Survey to request production data in tons per month for each month of calendar years 1993 through 1997, and has requested production data in tons per month for each month of calendar year 1997 and in tons per year for each year 1993 through 1996 in the Short Survey.

**Summary B:**

Three commenters (AK Steel, SSINA, AISI) remarked that questions regarding monthly production data were irrelevant to ELG development and required excessive detail. They recommended that these questions be deleted.

**Response B:**

EPA disagrees with the commenters. EPA needs monthly data for each of calendar years 1993 through 1997 in order to determine a reasonable measure of actual production for use in developing production-based regulatory options.

**Subject:** QUESTION 2A-8

Note: This question has become Detailed Survey Question 2A-6 due to survey revisions and updates.

**Comment**

**Numbers:** W1.22.P2, W1.23.P2, W4.65.P9, W4.66.P9, W4.67.P9, W4.68.P9, W4.69.P9

**Commenters:** AK Steel (2), AISI (5)

**Summary A:**

Question 2A-8.c asks respondents to provide the year in which the last major rebuild of the battery occurred.

One commenter (AISI) states that “the definition of a major rebuild (oven taken out of service for a period greater than seven days) is not the industry definition of a major rebuild. Most, if not all, batteries fall under this definition every year. The industry would consider a rebuild to be major only if the dollar amount required is greater than 10 to 15 percent of the value of the facility.”

**Response A:**

Note: This question has become Detailed Survey Question 2A-6.c.

The Agency has modified the definition that accompanies this question so that it comports with the industry definition. EPA contacted an industry representative to develop the revised definition.

**Summary B:**

Question 2A-8.d asks how many years remain in the project useful life of this [coke] battery. Two commenters (AK Steel, AISI) do not believe the life of the battery is relevant to plant water use and discharge. This question should be deleted.

**Response B:**

EPA agrees with the commenters and has removed this question.

**Summary C:**

Question 2A-8.e asks respondents to provide the name of the battery manufacturer. Two commenters (AK Steel, AISI) do not believe this information is relevant to the development of ELGs and should be dropped.

**Response C:**

EPA has removed this question because this information is publicly available.

**Summary D:**

Question 2A-8.f asks respondents to provide the number of ovens in the battery. Two commenters (AK Steel, AISI) do not believe this information is relevant to the development of ELGs and should be dropped.

**Response D:**

EPA agrees with the commenters and has removed this question.

**Summary E:**

Question 2A-8.g asks respondents to provide the dimensions of the ovens. Two commenters (AK Steel, AISI) do not believe this information is relevant to the development of ELGs and should be dropped.

**Response E:**

EPA agrees with the commenters and has removed this question.

**Summary F:**

Question 2A-8.i asks respondents to identify what materials are charged to the battery. One commenter (AISI) states that “the question asks the responder to identify the charge materials for the battery, but does not specify whether the answer is to report the information for the current year, last year, or any other specific time frame.”

**Response F:**

Note: This question has become Detailed Survey Question 2A-6.f.

EPA agrees with AISI’s comment and has modified this question to request data from 1997.

**Summary G:**

Question 2A-8.j asks respondents if coal is preheated for the battery. One commenter (AISI) does not believe this information is relevant to the development of ELGs and should be dropped.

**Response G:**

Note: This question has become Detailed Survey Question 2A-6.g.

Coal preheating results in the removal of free moisture in coking coals, and thereby reduces the amount of waste ammonia liquor generated per ton of coal charged. EPA needs responses to this question in order to determine if coal preheating may be a relevant factor in segmenting the cokemaking subcategory on the basis of flow, or in developing flow-based regulatory options.

**Summary H:**

Question 2A-8.k asks respondents to provide the coal charging system for the battery. One commenter (AISI) does not believe this information is relevant to the development of ELGs and should be dropped.

**Response H:**

EPA agrees with AISI's comment and has removed this question.

**Summary I:**

Question 2A-8.l asks respondents to indicate the type of coke oven gas collection mains for the battery. One commenter (AISI) does not believe this information is relevant to the development of ELGs and should be dropped.

**Response I:**

EPA agrees with AISI's comment and has removed this question.

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**Subject:** QUESTION 2A-9

Note: This question has become Detailed Survey Question 2A-7.d due to survey revisions and updates.

**Comment**

**Numbers:** W1.71.P3, W4.72.P10

**Commenters:** AK Steel (1), AISI (1)

**Summary:**

Question 2A-9.d asks respondents to specify the coke oven gas desulfurization system manufacturer if elemental sulfur or other sulfur products are recovered at the by-product

recovery plant. Two commenters (AK Steel, AISI) suggest that this question be deleted because the manufacturer is not relevant information.

**Response:**

The Agency needs the name of the coke oven gas desulfurization system manufacturer because different desulfurization systems have different water discharge rates. The Agency will use this information to determine if a relationship between desulfurization system design and wastewater generation exists.

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**Subject:** NOT APPLICABLE OPTION

**Comment**

**Numbers:** M5.14.P3, W4.10.Pv, W4.28.P3, W4.71.P9, W4.99.P13, W4.209.P26

**Commenters:** AISI meeting 12/12/97 (1), AISI (5)

**Summary A:**

AISI commented that, “The instructions require that every question be completed. There are a number of questions requiring boxes to be checked. Each such question should include a selection for ‘none.’”

**Response A:**

EPA has modified the surveys to give “none” as a response option in all check box questions, where appropriate (e.g., Detailed Survey Question 2A-7.e and Short Survey Question 2A-11.f). In addition, the Detailed Survey and Short Survey General Instructions state: “If a question is not applicable to your facility, write ‘NA.’”

**Summary B:**

More specifically, AISI also commented that Question 2A-9.c should include boxes for “none” and “comments.”

**Response B:**

Note: This question has become Detailed Survey Question 2A-7.c due to survey revisions and updates.

Detailed Survey Question 2A-7 requests information regarding operable by-product recovery plants. It contains question-specific instructions that direct the site respondent to skip to Question 2A-8 if the site does not have an operable by-product recovery plant. EPA has not made the specific modification to part c of this question as suggested in AISI’s comment because the Agency believes that neither of the suggested check box

options would be an appropriate response to the question: “What by-products are recovered?” As stated in the Detailed Survey General Instructions, site respondents may use the Comments page located at the end of each subsection to clarify or provide additional information regarding any response.

### **Summary C:**

AISI also commented that [for Questions 2C-15, 16, 17, 18 and Questions 2M-6, 7, 8, 9] the option of writing “N/A” should be included.

### **Response C:**

EPA has eliminated Questions 2C-15, 16, 17 and Questions 2M-6, 7, 8 from the survey. EPA has replaced Questions 2C-18 and 2M-9 with Detailed Questions 2C-10 and 2M-10. Detailed Survey Questions 2C-10 and 2M-10 request production data in tons per month for each month of calendar years 1993 through 1997. EPA has not included the option of writing “N/A” in response to either of these questions because, if a site has had no production, “zero” is the appropriate response.

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**Subject:** WET AIR POLLUTION CONTROL (WAPC)

**Comment**

**Numbers:** W1.51.P4, W1.55.P4, W4.23.P2, W4.183.P23, W4.194.P24, W6.32.P6, M5.16.P3, S1.11.P2

**Commenters:** AK Steel (2), AISI (3), SMA (1), AISI meeting 12/12/97 (1), SMA meeting 11/6/97 (1)

### **Summary A:**

One commenter (AISI) asks “will EPA be adjusting ELG factors due to wet air pollution control devices that were not typically employed for development of the current ELGs? The controls, such as those are required under the Benzene NESHAPs, were necessary for compliance with the Clean Air Act Amendments of 1990, and as a result, credits should be applicable.”

### **Response A:**

EPA will gather and evaluate data regarding all process wastewaters generated at iron and steel industry sites, including those wastewaters that were not typically generated during the development of the current ELGs. The Agency will evaluate these data and further address AISI’s comment at the time of proposal.



## **Summary B:**

Two commenters (AK Steel, AISI) note that wet air pollution control devices typically do not apply to continuous casting or hot forming operations. Commenters suggest that this section should be removed. During EPA's meeting with AISI, it was suggested that these questions should be directed toward scale breaking or flume flushing.

## **Response B:**

EPA does not agree that WAPC system questions should be removed from these sections. All WAPC system questions (e.g., Detailed Survey Question 2L-10 and Short Survey Question 2A-12) are formatted with the following statement: "If your site does not have wet air pollution control associated with this [process], check the box to the right and SKIP to [the next] question." If sites do not have a WAPC system associated with a process, respondents will not be burdened with any requirement to complete this question.

EPA has not made the revisions suggested by AISI, but the Agency has included separate questions (e.g., Detailed Survey Question 2J-2 and Short Survey Question 2A-11) that will capture information regarding all direct contact water systems associated with the Casting and Hot Forming processes.

## **Summary C:**

One commenter (SMA) suggested that "EPA should request survey respondents to provide information on water use programs for air pollution control systems in one dedicated section of the survey, rather than requesting the information for each separate facility. At most (SMA) member companies, the air pollution control system operates as a unit, handling air pollution control for the furnace, caster, and finishing operations. EPA should at least give survey respondents the option of providing, in one survey section, water use information for the entire air pollution control system, if appropriate, rather than breaking it down into separate sections. Otherwise, the survey will not reflect the practice at the majority of raw steel making facilities in the U.S., and most steel companies will have to reiterate a substantial amount of information when completing the survey."

During a trade association (SMA) meeting, it was suggested that the WAPC sections be pulled out into a stand-alone Section 2 subsection, although trade association members did concede that blast furnace air pollution control belongs with the blast furnace subsection.

## **Response C:**

EPA has not included a stand-alone section for questions regarding water associated with air pollution control devices because the Agency believes that these questions should be asked in the same section as other questions regarding a specific manufacturing process. The Agency has, however, included a question in all WAPC system questions that asks the respondent to provide the designation(s) of all operations associated with the WAPC system. If information for this system is already provided elsewhere in the survey, the

respondent simply checks a box and skips to the next question. Therefore, the Agency has addressed the comments regarding allowing sites to accurately reflect their operating practices while avoiding having to reiterate information provided elsewhere in the survey.

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**Subject:** WAPC SYSTEM

**Comment**

**Numbers:** W1.31.P3, W4.11.Pv, W4.29.P3, W4.91.P12, W4.118.P15, M5.15.P3

**Commenters:** AK Steel (1), AISI (3), AISI meeting 12/12/97 (1)

**Summary:**

Two commenters (AK Steel, AISI) say that the questionnaire is structured so that a set of questions has to be answered for each wet air pollution control device. Where multiple devices serve the same processing unit (e.g., a venturi scrubber, separator, and demister; a venturi scrubber and a gas cooler in series serving the same blast furnace), this structure will result in identical responses being repeated for each subsection. The question should refer to the system as a whole and not its parts.

One commenter (AISI, AISI meeting) says “the focus of the questions, where applicable, should be on the total ‘system’ rather than on individual components of the system. As drafted, the questions that currently require responses for each component of a ‘system’ can lead to confusion and redundancy. For example, when more than one WAPC is sharing a common water system, it is not possible to determine the impact of each individual WAPC on the system water quality, sludge generation rate, or discharge water quality. When there are several WAPC devices operating in parallel in a total system (e.g., three identical venturi scrubbers on three blast furnaces sharing a common water system). It should be clarified that the questions about the WAPC should only be answered once. More meaningful data will be obtained from the responses if these questions are re-drafted to address the system. Preparation of the responses will be less burdensome as well.”

**Response:**

EPA agrees with the commenters, and has replaced questions regarding WAPC devices with questions regarding WAPC systems. In addition, the Agency has included a question in all WAPC system questions that asks the respondent to provide the designation(s) of all operations associated with the WAPC system. If information for this system is already provided elsewhere in the survey, the respondent simply checks a box and skips to the next question.

**Subject:** QUESTION 2A-12

Note: This question has become Detailed Survey Question 2A-8 due to survey revisions and updates. EPA has revised this question to request information regarding WAPC systems.

**Comment**

**Numbers:** W1.25.P3, W4.75.P10, W4.77.P10

**Commenters:** AK Steel (1), AISI (2)

**Summary A:**

Question 2A-12 poses several questions about cokemaking-related wet air pollution control (WAPC) devices.

Two commenters (AK Steel, AISI) say that “the question appears to consider coke quenching as a WAPC device, which it is not, and proceeds to ask a series of questions concerning the unit design in terms of air and water flows. This type of information would not typically be available for a quench tower system. If EPA is interested in information related to coke quenching, a separate question addressing only quenching should be drafted.”

**Response A:**

EPA agrees with the commenters, and has removed all response options for “coke quenching” from Detailed Survey Question 2A-8, and has removed all response options for “quencher” in WAPC questions throughout the Section 2 subsections.

**Summary B:**

For part m (provide the average rate at which new water is added to the system), one commenter (AISI) says that “makeup water usage, when recorded, is typically measured using a totalizing meter. The correct unit for the response is gallons per day.”

**Response B:**

Note: This question has become Detailed Survey Question 2A-8.m.

EPA agrees with AISI, and has modified this question (and identical questions in all Section 2 subsections) to request data in gallons per day and days per year.

**Subject:** DRY AIR POLLUTION CONTROL (DAPC)

**Comment**

**Numbers:** M5.12.P3, W1.4.P1, W2.6.P2, W2.11.P2, W2.18.P2, W3.48.P8, W3.61.P9, W3.77.P11, W3.92.P12, W3.100.P13, W3.110.P14, W3.123.P15, W3.135.P16, W3.147.P17, W3.161.P18, W4.8.Pv, W4.78.P10, W4.92.P12, W4.101.P13, W4.121.P15, W4.131.P16, W4.144.P18, W4.158.P19, W4.168.P21, W4.177.P22, W4.184.P23, W4.195.P24, W4.203.P25, W4.214.P27 W5.6.P1, W5.11.P1, W5.18.P2, W6.20.P5

**Commenters:** AISI meeting 12/12/97 (1), AK Steel (1), STI (3), SSINA (10), AISI (14), Wheatland (3), SMA (1)

**Summary:**

Six commenters (AK Steel, STI, SSINA, AISI, Wheatland, SMA) remarked that the questions related to DAPC devices were irrelevant to ELG development and should be deleted from the survey.

**Response:**

The Agency needs data regarding DAPC systems in order to identify and study air pollution control technologies that result in zero water discharge from that system.

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**Subject:** QUESTION 2A-14.A

Note: Question 2A-14.a has become Detailed Survey Question 2A-10.a due to survey revisions and updates.

**Comment**

**Numbers:** W4.79.P11

**Commenters:** AISI (1)

**Summary:**

Question 2A-14.a asks respondents to provide information for process wastewater generating sources not associated with a cokemaking-related wet air pollution control device.

The commenter (AISI) suggests that “‘groundwater treatment units’ is listed as an off-site source contributing to process wastewater [in Question 2A-15.a]. This item could also be listed in Question 2A-14.a as an on-site source.”

**Response:**

EPA agrees with AISI, and has modified the question to give “ground water treatment units” as a response option.

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**Subject:** QUESTION 2A-15.A

Note: Question 2A-15.a has become Detailed Survey Question 2A-11.a due to survey revisions and updates.

**Comment**

**Numbers:** W4.80.P11

**Commenters:** AISI (1)

**Summary:**

Question 2A-15.a asks respondents to provide information for off-site process wastewater generating sources which contribute to the coke plant.

The commenter (AISI) suggests that “‘coke oven gas condensates’ is listed in Question 2A-14.a as an on-site source. This item could also be listed in Question 2A-15.a as an off-site source.”

**Response:**

EPA agrees with AISI, and has modified the question to give “coke oven gas condensates” as a response option.

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**Subject:** QUESTION 2A-16

Note: This question has become Detailed Survey Question 2A-12 due to survey revisions and updates.

**Comment**

**Numbers:** W1.26.P3, W4.81.P11

**Commenters:** AK Steel (1), AISI (1)

**Summary:**

Question 2A-16 asks respondents to provide information for water sources used for coke quenching that have not been identified in previous questions.

Two commenters (AK Steel, AISI) state that “information about sources of makeup water to coke quenching operations is not relevant and should be deleted.”

**Response:**

The Agency needs the information requested in this question in order to characterize the types of waters used for coke quenching, and in order to understand the effects that quench waters have on other processes and their associated wastewater streams.

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**Subject:** WASTE MANAGEMENT PRACTICES

**Comment**

**Numbers:** W1.5.P1, W4.9.Pv, M2.3.P3, M5.13.P3, S1.17.P2

**Commenters:** AK Steel (1), AISI (1), SMA meeting 11/12/97 (2), AISI meeting 12/12/97 (1)

**Summary A:**

Two commenters (AK Steel, AISI) believe that waste management practices are not relevant to what is discharged from wastewater treatment plants and they are not relevant to effluent limitations guidelines development. Commenters request that these questions be deleted from the survey.

**Response A:**

EPA disagrees with the commenters. The Agency needs information regarding pollution prevention (waste reduction) or management practices implemented by the site in order to identify innovative practices being performed in the industry for possible inclusion in proposed regulatory options.

**Summary B:**

During a trade association (SMA) meeting, it was noted that the survey does not have questions for plant-wide pollution prevention.

**Response B:**

EPA agrees with SMA, and has included a section for plant-wide pollution prevention: Detailed Survey Section 3B. This section is entitled “Plant-Wide Pollution Prevention Practices (Including Waste Reduction and Process Recycling),” and asks the respondent to describe plant-wide environmental management and pollution prevention practices which have not been described in previous survey sections. Short Survey Section 2C, entitled “Pollution Prevention Practices (Including Waste Reduction and Process Recycling),” requests descriptions of environmental management and pollution prevention practices, including those that are plant-wide.

**Subject:** QUESTION 2B-8

Note: This question has become Detailed Survey Question 2B-6 due to survey revisions and updates.

**Comment**

**Numbers:** W4.85.P11

**Commenters:** AISI (1)

**Summary:**

Question 2B-8 asks “what is the typical percent moisture by weight of the sinter mix as applied to the sinter strand?”

One commenter (AISI) states that “the moisture content of the sinter mix is not relevant and should be deleted.”

**Response:**

EPA will use the information in this question, in conjunction with the average amount of water added to the sinter mix (Question 2B-7) and the sources of water used to condition the sinter mix (Question 2B-8), in order to identify sites that use water to condition sinter mix and to study this practice. Question 2B-8 is used to determine how much water can be disposed of via this method. In addition, the Agency will study information provided by sites that dispose of wastewater through this practice, and will determine if this disposal alternative may be developed into a low cost candidate technology for regulatory options. During this analysis, EPA will evaluate whether this disposal practice introduces pollutants into the wind box scrubber water or into the sinter itself. The sinter is then charged to the blast furnace and these pollutants may show up in blast furnace scrubber water.

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**Subject:** QUESTION 2B-16

**Comment**

**Numbers:** W1.29.P3, W4.89.P12

**Commenters:** AK Steel (1), AISI (1)

**Summary:**

Question 2B-16 asks respondents to provide production data for sintering for each month in calendar year 1997, and the total number of operating days and the total number of operating hours during which sintering production operations occurred.

Two commenters (AK Steel, AISI) state that “there is a typographical error in the instructions. The instructions refer to the ‘1997 values in Question 2B-12.’ The question that should be referenced is 2B-13.”

**Response:**

Because EPA has removed this question, this comment is no longer applicable.

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**Subject:** SECTION 2C

**Comment**

**Numbers:** W3.50.P8, W3.51.P8, W3.52.P8, W3.53.P8, W3.54.P8, W3.55.P9, W3.56.P9, W3.62.P9, W4.95.P12

**Commenters:** SSINA (8), AISI (1)

**Summary A:**

Section 2C. Briquetting (and other agglomeration processes) contains several process specific questions.

Question 2C-4 asks for the total rated capacity of the agglomeration process. One commenter (AISI) believes this information is not relevant to water pollution control and should be deleted.

**Response A:**

Note: This question has become Detailed Survey Question 2C-4.a due to survey revisions and updates.

EPA disagrees with AISI. The Agency needs the total rated capacity of the agglomeration process in order to understand the maximum production (and associated wastes) that could be expected at the process.

**Summary B:**

Two commenters (SSINA, AISI) believe the following three questions do not address issues relevant to the development of ELGs for process wastewater and should be deleted.

- Question 2C-5 asks whether the agglomeration process is operated by the company or by an on-site contractor.
- Question 2C-6 asks how many agglomeration lines comprise this agglomeration process.



- Question 2C-7 asks how many agglomeration lines were in operation during 1997.
- Question 2C-9 asks what the typical yield of the agglomeration process is.

**Response B:**

EPA agrees with the commenters, and has removed these questions.

**Summary C:**

Two commenters (SSINA, AISI) believe the following question does not address issues relevant to the development of ELGs for process wastewater and should be deleted.

- Question 2C-8 asks whether heating is part of the agglomeration process and if so, indicate the method used to heat the materials.

**Response C:**

Note: This question has become Detailed Survey Question 2C-5 due to survey revisions and updates.

The Agency needs the information requested in this question because heating may cause volatilization of some materials, which will affect air emission discharges and pollutant loadings in the scrubber water from the agglomeration process. EPA is required to consider non-water quality environmental impacts when establishing Effluent Limitations Guidelines and Standards. In addition, the volatilization of these materials will eliminate their presence in the blast furnace operation.

**Summary D:**

One commenter (SSINA) believes the following question does not address issues relevant to the development of ELGs for process wastewater and should be deleted.

- Question 2C-13 asks whether natural or synthetic binding materials are used in the agglomeration process, and if so, provide a list of the principal ingredients and MSDSs.

**Response D:**

Note: This question has become Detailed Survey Question 2C-8 due to survey revisions and updates.

EPA disagrees with SSINA. EPA needs this information in order to identify potential pollutants of concern in waste streams.

### **Summary E:**

One commenter (SSINA) believes the following question does not address issues relevant to the development of ELGs for process wastewater and should be deleted.

- Question 2C-14 asks respondents to identify raw materials charged to the process.

### **Response E:**

Note: This question has become Detailed Survey Question 2C-9 due to survey revisions and updates.

EPA has modified this question to remove the request for the average percentage of agglomeration material represented by each raw material. EPA needs the identification of all materials charged to the agglomeration process in order to identify sources of potential pollutants of concern in waste streams associated with the process, as well as pollutants that may be introduced to the blast furnace in the sinter and may be transferred to blast furnace scrubber water.

### **Summary F:**

One commenter (SSINA) believes the following question does not address issues relevant to the development of ELGs for process wastewater and should be deleted.

- Question 2C-22 asks how many sources are present which generate process wastewater not associated with an agglomeration-related wet air pollution control device.

### **Response F:**

Note: This question has become Detailed Survey Question 2C-13 due to survey revisions and updates.

EPA needs to gather information on all process wastewaters related to iron and steel manufacturing operations in order to develop appropriate limitations and standards. If the site does not generate any “other” process wastewater, the respondent is directed to skip to Question 2C-14.

**Subject:** QUESTION 2D-7

**Comment**

**Numbers:** W1.34.P3, W1.35.P3, W4.106.P13, W4.108.P14, W4.109.P14, W4.110.P14

**Commenters:** AK Steel (2), AISI (4)

**Summary A:**

Question 2D-7 poses several questions about blast furnace water systems.

In part a, the respondent is asked to indicate the water system which this set of responses represents. Two commenters (AK Steel, AISI) state that “this question requiring a number for the water system associated with the blast furnaces(s) pre-supposes that the water system is separate and distinct. Various plants combine their blast furnace and sinter plant process wastewaters. It will be difficult to cross-reference the correct responses.”

**Response A:**

EPA has removed this question from the survey; therefore, this comment is no longer applicable.

**Summary B:**

In part b, the respondent is asked to provide the total amount of iron produced and the operating schedule for all blast furnaces using a common water system. One commenter (AISI) suggests that “hot iron should be defined as ‘tons per day tapped’ (i.e., in the torpedo car as it leaves the blast furnace).”

In part c, the respondent is asked to provide maximum total millions of tons of iron produced in one day. Two commenters (AK Steel, AISI) states that “millions of tons of iron produced per day and per month are not the typical units for recording production. The units of tons per day and tons per month should be used.”

**Response B:**

EPA has removed these questions, but has included AISI’s suggested revisions in Detailed Survey Question 2D-5.j, which requests the production data in tons per month for each blast furnace during each month of calendar years 1993 through 1997. This question requests data in “tons of iron produced as the amount of iron tapped from the blast furnace.”

**Summary C:**

In parts d and e, the respondent is asked to provide the maximum total millions of tons of iron produced in one month and to provide the production data for all blast furnaces sharing the water system for each month in calendar year 1997.

One commenter (AISI) states that “the data should be requested in maximum tons per shift.”

**Response C:**

EPA has removed these questions from the survey; therefore, this comment is no longer applicable.

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**Subject:** QUESTION 2D-8

Note: This question has become Detailed Survey Question 2D-5 due to survey revisions and updates.

**Comment**

**Numbers:** W1.37.P3, W1.38.P3, W4.112.P14, W4.113.P14, W4.115.P14

**Commenters:** AK Steel (2), AISI (3)

**Summary A:**

Question 2D-8.d asks respondents to provide the physical characteristics of the blast furnace. Two commenters (AK Steel, AISI) state that this information is not necessary for ELG development and this question should be deleted.

**Response A:**

Note: This question has become Detailed Survey Question 2D-5.e.

EPA has modified this question to request only furnace relining information. The Agency assumes in its analysis that blast furnace slag pit relines only occur when a blast furnace is taken out of service for relining (since the cost to take a furnace out of service simply for slag pit relining would be prohibitive). Slag pit relining is a best management practice (BMP) that may be included in proposed regulatory options. EPA needs to know the time interval between furnace relines in order to consider this as a possible BMP in this rulemaking.

### **Summary B:**

Question 2D-8.e asks respondents to provide the typical operating characteristics of the blast furnace. Two commenters (AK Steel, AISI) state that this information is not necessary for ELG development and this question should be deleted.

One commenter (AISI) asks, “is the oxygen blowing rate the same as the amount of oxygen enrichment?”

### **Response B:**

Note: This question has become Detailed Survey Question 2D-5.f.

EPA has modified this question to request only operating top pressure and temperature, operating blast temperature, gas cooler outlet gas temperature, and typical yield. EPA needs this information because the operating pressure and temperatures of the furnace affect the rate of generation of cyanide and ammonia emissions and, subsequently, the quality of scrubber water discharges. EPA may need to transfer wastewater characterization data collected through sampling episodes, or other mechanisms, to certain sites based on these data.

Because the modified question does not request information regarding oxygen blowing rate, AISI’s comment regarding this term is no longer applicable.

### **Summary C:**

Question 2D-8.h asks respondents to identify all iron-containing raw materials which are charged to the blast furnace, and to indicate the typical pounds charged per net ton of hot metal manufactured and the percentage of iron in each raw material. The commenter (AISI) asks “how does the EPA plan to use this blast furnace raw material information? The amount of raw materials and percent iron concentration of the materials charged to the furnace seems irrelevant.” Another commenter (AK Steel) states that this information is not necessary for ELG development and should be dropped.

Question 2D-8.i asks respondents to identify all non-iron-containing raw materials which are charged to the blast furnace. One commenter (AK Steel) states that this information is not necessary for ELG development and should be dropped.

### **Response C:**

Note: These questions have become Detailed Survey Questions 2D-5.h and 2D-5.i.

EPA has modified Question 2D-5.h to remove the request for the percent of iron in each material.

The Agency disagrees with AK Steel's comments. EPA needs the identification and amount of each raw material charged to the blast furnace in order to characterize blast furnace wastewater streams and prepare baseline pollutant loading estimates for this type of process.

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**Subject:** WATER SOURCES

**Comment**

**Numbers:** W1.9.P1, W4.114.P14, W4.130.P16, W4.143.P18, W4.157.P19, W4.167.P21, W4.176.P22, W4.182.P23, W4.193.P24, W4.213.P26

**Commenters:** AK Steel (1), AISI (9)

**Summary A:**

(AK Steel, AISI) "Questions concerning water sources are not clear. The use of service water and noncontact cooling water could be confused as the same source; likewise, process water and treated wastewater could also be the same. Does the definition of process wastewater include water that is recycled from another process? Furthermore, are water sources relevant to ELG development?"

**Response A:**

EPA has clarified the terms "Plant Service Water," "Noncontact Cooling Water," and "Process Wastewater" in the Definitions section. In addition, the Agency has modified all questions regarding water sources (e.g., Detailed Survey Question 2D-7.n) by replacing the "Treated wastewater" response option with "Treated process wastewater," and by replacing the "Untreated wastewater" response option with "Untreated process wastewater."

EPA needs the identification of water sources in order to characterize the water source and the quality of water that is required, and to identify reused or cascaded water.

**Summary B:**

(AK Steel, AISI) Question 2K-14.l, in particular, "does not allow an adequate description of the water systems which typically include internal recirculation and service multiple facilities. This question is not appropriate for a large, combined recycle system."

**Response B:**

Note: This question has become Detailed Survey Question 2K-14.n due to survey revisions and updates.

Detailed Survey Question 2K-14.n is designed to capture only information regarding the sources of water addition to a WAPC system at the Hot Forming process. EPA will use this question in conjunction with several questions in a majority of survey sections to capture information regarding large, combined recycle systems. In addition, site respondents are not required to repeat a response regarding a system used for multiple operations if this information is provided elsewhere in the survey.

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**Subject:** QUESTION 2D-9.B

**Note:** This question has become Detailed Survey Question 2D-7.b due to survey revisions and updates.

**Comment**

**Numbers:** W1.40.P3, W4.119.P15

**Commenters:** AK Steel (1), AISI (1)

**Summary:**

Question 2D-9.b asks respondents to indicate the process(es) associated with this blast furnace-related wet air pollution control device. Two commenters (AK Steel, AISI) suggest that “blast furnace gas cleaning” and “blast furnace casting” should be substituted for “blast furnace emissions”.

**Response:**

EPA agrees with the commenters, and has replaced the “blast furnace emissions” response option with “blast furnace gas cleaning” and “blast furnace casting” options.

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**Subject:** QUESTION 2D-12.B

**Note:** This question has been incorporated into Detailed Survey Question 2D-6, which requests information regarding each on-site blast furnace slag pit.

**Comment**

**Numbers:** W4.122.P15

**Commenters:** AISI (1)

**Summary:**

Question 2D-12.b asks respondents to indicate the types(s) of water used for slag cooling/quenching or granulated slag operations. The commenter (AISI) suggests that “the question should differentiate between recirculation slag pits and open slag pits.”

**Response:**

The Agency agrees with AISI's comment, and has included question 2D-6.g, which asks the respondent to indicate the type of water flow in the slag pit. The given response options in this question are "Open - once through" and "Recirculation."

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**Subject:** QUESTION 2D-13

Note: This question has become Detailed Survey Question 2D-9.a due to survey revisions and updates.

**Comment**

**Numbers:** W4.123.P15

**Commenters:** AISI (1)

**Summary:**

Question 2D-13 asks respondents to indicate how many sources are present which generate process wastewater not associated with a blast furnace-related wet air pollution control device. The commenter (AISi) states that "boilerhouse should not be included in this question."

**Response:**

EPA agrees with AISI, and has removed "Boiler house and power house water treatment residuals" from the list of given response options.

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**Subject:** QUESTION 2E-5

Note: This question has become Detailed Survey Question 2E-3 due to survey revisions and updates.

**Comment**

**Numbers:** W4.127.P16

**Commenters:** AISI (1)

**Summary:**

Question 2E-5 asks respondents to identify all raw materials which are charged to the DRI process and the percentage of the total feed mixture for each raw material. The commenter (AISi) believes "the percentage of raw materials charged is not relevant and should be deleted."



**Response:**

EPA agrees with AISI, and has modified this question to remove the request for the average percentage of total feed mixture that each raw material represents.

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**Subject:** QUESTIONS 2F-1 AND 2F-2

**Comment**

**Numbers:** W3.67.P10, W1.41.P3, W3.68.P10, W4.134.P17

**Commenters:** AK Steel (1), SSINA (2), AISI (1)

**Summary:**

Question 2F-1 asks how many BOFs are on the respondent's site. One commenter (SSINA) says that this information is irrelevant and this question should be deleted.

Question 2F-2 asks how many of the BOFs on site were in operation in 1997. Three commenters (AK Steel, SSINA, AISI) say that this information is irrelevant and this question should be deleted.

**Response:**

EPA has replaced these questions with Detailed Survey Question 2F-2, which requests the number of operable BOFs on site during 1997. The Agency needs this information in order to estimate pollutants and cost on a per-furnace basis.

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**Subject:** QUESTION 2F-4

Note: This question has become Detailed Survey Question 2F-2 due to survey revisions and updates.

**Comment**

**Numbers:** W3.70.P10

**Commenters:** SSINA (1)

**Summary A:**

Question 2F-4 says: "Typically, BOFs under the same roof or sharing the same water system are called BOF shops. This definition of BOF shops is used for this survey. In the top row of the table below, provide a list of the BOF shops at this site that were in operation during 1997. Use the site terminology or site designation for each BOF shop. Fill in each column with the site designation for each furnace at each shop."

One commenter (SSINA) suggests that “EPA should delete the first two sentences of this question. The sentences are unnecessary commentary and they make the question confusing to answer.

**Response A:**

Because EPA has modified the “Basic Oxygen Furnace (BOF) Shop” definition, the Agency has also modified the definition in the directions to this question. EPA includes the definition in this set of directions to reduce respondent burden, and does not agree that the definition is “unnecessary commentary” or confusing.

**Summary B:**

SSINA suggests that “EPA should also delete the word ‘shop’ in the fourth sentence; the sentence should read ‘use the site terminology or site designation for each BOF.’ Also, the words ‘at each shop’ should be deleted from the last sentence.”

**Response B:**

EPA has not modified these directions because they clearly describe the information the Agency requires. EPA is requesting both the shop designation (at the top of each column) and the individual furnace designations.

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**Subject:** CASTING METHOD

**Comment**

**Numbers:** W1.43.P3, W3.73.P10, W3.89.P12, W4.139.P17, W4.155.P19

**Commenters:** AK Steel (1), SSINA (2), AISI (2)

**Summary:**

Two commenters (AK Steel, AISI) stated that, “The casting method for steel from the BOF [or EAF] is not applicable to this section [Questions 2F-12 and 2G-12]. This should be covered in the continuous casting section. The end use of BOF steel is not relevant and should be deleted.”

SSINA commented that questions 2F-12 and 2G-12, asking for the casting processes from the BOF and EAF, respectively, should be deleted because the questions “...do not address issues relevant to the development of ELGs for process wastewater.”

**Response:**

EPA has removed questions regarding casting methods from Detailed Survey Sections 2F and 2G because this information can be determined using other survey responses in Detailed Survey Section 2J.

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**Subject:** QUESTION 2F-13

Note: These questions have become Detailed Survey Questions 2F-7 and 2F-8 due to survey revisions and updates.

**Comment**

**Numbers:** W4.140.P17

**Commenters:** AISI (1)

**Summary:**

Question 2F-13 requests “how many ladle metallurgy stations are in this shop?” Question 2F-14 requests “how many vacuum degassing stations are in this shop?”

One commenter (AISI) suggests “A less confusing question might be, ‘how many ladle metallurgy stations (or vacuum degassing stations) are associated with this shop?’”

**Response:**

EPA agrees with AISI, and has modified these questions to resemble those suggested in the comment.

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**Subject:** ADDITIVE

**Comment**

**Numbers:** S1.16.P2, W1.45.P4, W1.72.P4, W3.75.P10, W4.141.P17, W4.156.P19, W4.163.P20, W4.174.P22

**Commenters:** SMA meeting 11/6/97 (1), AK Steel (2), SSINA (1), AISI (4)

**Summary A:**

AK Steel commented, “...is this list of detailed additives [in Question 2F-15.e] required for the purpose of ELG development? Instead of providing these details, simply indicate the type of steels made, carbon, alloy or stainless, and analyze the effluent accordingly.”

AISI commented that, “This list of detailed additives is not required for the purpose of this document.”

**Response A:**

Note: This question has become Detailed Survey Question 2F-9 due to survey revisions and updates.

EPA has modified this question to remove the request for the percentage represented by each material. The Agency needs the identifications of raw materials and alloying elements in order to identify sources of potential pollutants of concern in waste streams associated with the process.

EPA has not included AK Steel’s suggested question in Section 2F because Detailed Survey Question 1-18 requests information regarding steel types produced and/or processed.

To reduce the respondent burden associated with this question, EPA has provided the respondent with the option of attaching a previously prepared list of raw materials and alloying elements if a list is readily available. In addition, the Agency has modified the question to provide a comprehensive list of check box response options, and to request information on a shop basis, rather than on a furnace basis.

**Summary B:**

SSINA commented that, “... EPA should delete the second sentence [in Question 2F-15.e], beginning with the word ‘indicate’ as well as the columns requesting the percentage of each raw material and alloying agent. Providing the percentages is too difficult for industry to answer because the percentage varies from grade to grade. In addition, the information is proprietary. EPA would be advised to ask facilities whether they use the item.”

**Response B:**

EPA agrees with SSINA, and has modified this question to request only raw materials and alloying elements charged to the BOFs in 1997.

**Summary C:**

AISI commented that, “The list of raw materials charged [to both the BOF and EAF, Questions 2F-15.e and 2G-15.d, respectively] includes some materials that would be typically added in the LMF and/or vacuum degassing.”

**Response C:**

Note: These questions have become Detailed Survey Questions 2F-9 and 2G-9, respectively, due to survey revisions and updates.

EPA has not removed any materials from the given list of response options presented in these questions. The Agency believes that a site could potentially charge each of these materials to a BOF or EAF. In addition, EPA has modified the list to add additional materials and alloying elements to reduce the burden on the respondent.

**Summary D:**

AK Steel went on to further state that “The alloying elements charged [for Vacuum Degassing] are not relevant and this question [2H.-1.f] should be deleted.”

AISI went on to similarly comment that, “The alloying elements charged to the ladle [Question 2H-1.f] do not seem necessary for the purposes of this document. These additives may be added at different locations in the process (i.e., BOF, LMF, degassing), depending on the production orders. This question is not relevant and should be deleted from the questionnaire.”

**Response D:**

Note: This question has become Detailed Survey Question 2H-2 due to survey revisions and updates.

EPA requests the identification of raw materials and alloying elements added at BOFs, EAFs, and ladle metallurgy processes. EPA needs this information in order to identify sources of potential pollutants of concern in waste streams associated with the process. Through these questions, the Agency will capture information regarding all materials charged to each process, regardless of changes in production orders during the year.

**Summary E:**

AISI also stated that, “The alloying elements charged to the ladle [Question 2I-1.f] are not necessary...The list of additives can be provided, but not percentages of use.”

**Response E:**

Note: This question has become Detailed Survey Question 2I-2 due to survey revisions and updates.

As stated above, EPA has modified this question to remove the request for the percentage represented by each material. The Agency needs the identifications of alloying elements in order to identify sources of potential pollutants of concern in waste streams associated with the process.

**Summary F:**

SMA commented in their November 6, 1997 meeting with EPA that for Question 2I-1.e, alloy additions and chemistry control should be choices.

**Response F:**

Note: This question has become Detailed Survey Question 2I-1.g due to survey revisions and updates.

EPA has modified this question to replace “Composition control” with “Alloy additions.” EPA has not included “Chemistry control” because the Agency believes that, for the purpose of this question, “Chemistry control” is too general.

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**Subject:** TYPICALLY

**Comment**

**Numbers:** W1.44.P3, W4.12.Pv, W4.142.P18, M5.19.P4, W3.74.P10

**Commenters:** AK Steel (1), AISI (2), AISI meeting 12/12/97 (1), SSINA(1)

**Summary:**

Two commenters (AK Steel, AISI) noted that, in Question 2F-15.e, no explanation for “typically” was provided. There is no typical charge to a BOF, as the materials depend on the customer specifications and some of these mixes are proprietary. One plant may make as many as 30 to 35 different grades of steel. Consequently, the steel facilities should be able to provide a list of alloying elements, but cannot provide the percentages. This comment also applies to another subcategory (Questions 2G-15.d) where the “typical” alloying percentages are requested.

One commenter (SSINA) suggests that “EPA should modify this question [Question 2F-15.e]. In the first sentence, the word ‘typically’ should be removed.”

One commenter (AISI) noted that, in several of the manufacturing process information sections, information about typical percentages of alloying elements is requested. This information, in many cases, cannot be provided in terms of “typical” use. A means of indicating the presence of an alloying element should be sufficient, and questions asking for percentages should be deleted. Actual effluent sampling results should be used to determine the wastewater constituents.

**Response:**

Note: Questions 2F-15.e and 2G-15.d have become Detailed Survey Questions 2F-9 and 2G-9 due to survey revisions and updates.

EPA agrees with the commenters, and has modified all questions regarding raw materials and alloying elements to remove the word “typical.” The Agency has also removed the request for the percentage represented by each material. The questions now request raw materials and alloying elements that have been charged to the specific process during 1997.

To reduce the respondent burden associated with this question, EPA has provided the respondent with the option of attaching a previously prepared list of raw materials and alloying elements if a list is readily available.

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**Subject:** QUESTION 2F-17

Note: This question has become Detailed Survey Question 2F-12 due to survey revisions and updates.

**Comment**

**Numbers:** W3.76.P11

**Commenters:** SSINA (1)

**Summary:**

Question 2F-17 asks respondents to provide information about BOF-related semi-wet air pollution control (SWAPC) devices. The commenter (SSINA) believes that “EPA should delete this entire question. Semi-wet systems do not produce discharges and are not important to ELG development.”

**Response:**

EPA disagrees with SSINA’s comment. On site visits, the Agency has observed wastewater discharges from BOF-related SWAPC systems. Question 2F-12 requests information on the operation of SWAPC systems and whether wastewater discharges normally occur. This information is needed in order to properly estimate costs and pollutant loadings associated with proposed regulatory options.

**Subject:** QUESTION 2F-20

Note: This question has become Detailed Survey Question 2F-15 due to survey revisions and updates.

**Comment**

**Numbers:** W4.145.P18

**Commenters:** AISI (1)

**Summary:**

Question 2F-20 asks respondents to provide information about sources which generate process wastewater not associated with a BOF-related wet air pollution control device or a BOF-related semi-wet air pollution control device.

The commenter (AISI) suggests that “the question should exclude vacuum degassers and casters.”

**Response:**

EPA agrees with AISI, and has modified the directions for this question to read as follows: “Excluding air pollution control systems, vacuum degassers, casters, and storm water, how many other wastewater sources from BOF steelmaking operations are present?”

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**Subject:** QUESTION 2G-1

**Comment**

**Numbers:** W3.82.P11, W3.83.P11, W4.148.P18

**Commenters:** SSINA (2), AISI(1)

**Summary:**

Question 2G-1 asks how many EAFs are on the respondent’s site. One commenter (SSINA) says that this information is irrelevant and this question should be deleted.

Question 2G-2 asks how many of the EAFs on site were in operation in 1997. Two commenters (SSINA, AISI) say that this information is irrelevant and this question should be deleted.



**Response:**

EPA has replaced these questions with Detailed Survey Question 2G-2, which requests the number of operable EAFs on site during 1997. The Agency needs this information in order to estimate pollutants and cost on a per-furnace basis.

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**Subject:** QUESTION 2G-4

Note: This question has become Detailed Survey Question 2G-2 due to survey revisions and updates.

**Comment**

**Numbers:** W3.85.P11, S1.34.P4

**Commenters:** SSINA (1), SMA meeting 11/6/97 (1)

**Summary A:**

Question 2G-4 says: “Typically, EAFs under the same roof or sharing the same air or water system are called EAF shops or melt shops. This definition of EAF shops/melt shops is used for this survey. In the top row of the table below, provide a list of the EAF shops at this site that were in operation during 1997. Use the site terminology or site designation for each EAF shop. Fill in each column with the site designation for each furnace at each shop.”

One commenter (SSINA) suggests that “EPA should delete the first two sentences of this question. The sentences are unnecessary commentary and they make the question confusing to answer.

One commenter (SMA) indicated that the definition of “melt shop” in the question is different than in the definition section.

**Response A:**

Because EPA has modified the “Electric Arc Furnace (EAF) Shop” definition, the Agency has also modified the definition in the directions to this question. EPA includes the definition in this set of directions to reduce respondent burden, and does not agree that the definition is “unnecessary commentary” or confusing.

EPA has removed all references to “melt shop” from the surveys.

**Summary B:**

SSINA stated that “EPA should also delete the word ‘shop’ in the fourth sentence; the sentence should read ‘use the site terminology or site designation for each EAF.’ Also, the words ‘at each shop’ should be deleted from the last sentence.”

**Response B:**

EPA has not modified these directions because they clearly describe the information the Agency requires. EPA is requesting both the shop designation (at the top of each column), and the individual furnace designations.

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**Subject:** QUESTION 2G-10

**Comment**

**Numbers:** W4.154.P19

**Commenters:** AISI (1)

**Summary:**

Question 2G-10 asks respondents to provide the maximum tons of steel produced in one month from this EAF shop during the past five calendar years. The commenter (AISI) asks “if the facility was idled for an extended period of time due to circumstances such as labor disputes, should data for a more ‘normal’ year be substituted?”

**Response:**

Because EPA has removed this question, this comment is no longer applicable; however, EPA has modified the beginning instructions of each subsection to read: “If an operable unit or water system was not in operation during 1997, substitute the most recent calendar year when such circumstances did not exist. Note the year of operation and the circumstances in the comments at the end of this section, and provide data from that calendar year.”

**Subject:** QUESTION 2G-12

**Comment  
Numbers:** W6.25.P6

**Commenters:** SMA (1)

**Summary:**

Question 2G-12 asks respondents to indicate the casting process(es) for the steel produced in EAFs. One commenter (SMA) suggests “EPA should eliminate this question because the same information is requested later in the survey.”

**Response:**

EPA agrees with SMA’s comment, and has removed the question regarding casting methods from Detailed Survey Section 2G because this information can be determined using other survey responses in Detailed Survey Section 2J.

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**Subject:** QUESTION 2G-13

Note: This question has become Detailed Survey Question 2G-7 due to survey revisions and updates.

**Comment  
Numbers:** W6.26.P6

**Commenters:** SMA (1)

**Summary:**

Question 2G-13 asks respondents to indicate how many ladle metallurgy stations are in this EAF shop. One commenter (SMA) suggests “EPA should eliminate this question because the same information is requested later in the survey.”

**Response:**

EPA has modified this question to read: “How many ladle metallurgy stations are associated with this shop?” EPA needs this information in order to understand the configuration of sites with multiple EAF shops, which in turn can affect EPA’s ability to consider water reuse in another process or commingling of water prior to treatment. EPA also needs this information in order to correlate information gathered in Section 2G with additional information gathered in the Detailed Survey, particularly Section 2I.

**Subject:** QUESTION 2G-14

Note: This question has become Detailed Survey Question 2G-8 due to survey revisions and updates.

**Comment**

**Numbers:** W6.27.P6

**Commenters:** SMA (1)

**Summary:**

Question 2G-14 asks respondents to indicate how many vacuum degassing stations are in this EAF shop. One commenter (SMA) suggests “EPA should eliminate this question because the same information is requested later in the survey.”

**Response:**

EPA has modified this question to read: “How many vacuum degassing stations are associated with this shop?” EPA needs this information in order to understand the configuration of sites with multiple EAF shops, which in turn can affect EPA’s ability to consider water reuse in another process or commingling of water prior to treatment. EPA also needs this information in order to correlate information gathered in Section 2G with additional information gathered in the Detailed Survey, particularly Section 2H.

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**Subject:** QUESTION 2G-15

**Comment**

**Numbers:** W3.90.P12, W3.91.P12, W6.24.P6, W6.34.P4

**Commenters:** SSINA (2), SMA (2)

**Summary A:**

Question 2G-15 consists of several questions for which respondents need to provide responses for each EAF.

In part c, the definition of semi-wet is given as “Furnace off-gases are conditioned with moisture prior to processing in electrostatic precipitators or bag houses.” One commenter (SSINA) suggests “EPA should clarify the ‘semi-wet’ definition.” Another commenter (SMA) says that “semi-wet system describes such operations as coke ovens, which are not used in EAF steel production. EPA should eliminate the option of a semi-wet system in [this part of the question.]”

**Response A:**

Note: This question has become Detailed Survey Question 2G-10.d due to survey revisions and updates.

EPA modified the “semi-wet air pollution control” definition in the Definitions section, as well as the definition given in this question.

The term “semi-wet” is defined at 40 CFR 420.41(e), and has been defined as such since the 1982 rulemaking (as amended in 1984). In addition, the Agency is unaware of, and is unable to locate information regarding, semi-wet systems that describe coke oven operations.

EPA has not removed “semi-wet system” from the given list of response options in Question 2G-10.c, because EPA needs information on the type of gas cleaning system in order to evaluate whether a relationship exists between this type of system and the volume of water use and wastewater generation at the EAF.

**Summary B:**

In part d, respondents are asked to identify raw materials and alloying elements which were typically charged to the EAF and the typical percentage of the total feed mixture for each material. One commenter (SSINA) suggests “EPA should modify this question. In the first sentence, the word ‘typically’ should be removed.”

SSINA also stated that [for Question 2G-15.d] “EPA should delete the second sentence, beginning with the word ‘indicate’ as well as the columns requesting the percentage of each raw material and alloying agent. Providing the percentages is too difficult for industry to answer because the percentage varies from grade to grade. In addition, the information is proprietary. It is more appropriate to ask facilities whether they use the item.”

**Response B:**

Note: This question has become Detailed Survey Question 2G-9 due to survey revisions and updates.

EPA has removed the word “typically,” and modified the question to remove the request for the percentage represented by each material. The Agency needs the identifications of raw materials and alloying elements in order to identify sources of potential pollutants of concern in waste streams associated with the EAF process.

**Summary C:**

Another commenter (SMA) adds, that “if it is necessary that EPA obtain [information on raw and alloying materials], EPA should explain why, and limit the scope of questioning to toxic materials used in the production of steel.”

**Response C:**

The Agency needs the identification of raw materials and alloying elements in order to identify all sources of potential pollutants of concern in waste streams associated with the process.

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**Subject:** QUESTION 2G-16

Note: This question has become Detailed Survey Question 2G-11 due to survey revisions and updates.

**Comment**

**Numbers:** W6.17.P5, W6.28.P6

**Commenters:** SMA (2)

**Summary A:**

Question 2G-16 consists of several questions for which respondents need to provide responses for each EAF-related wet air pollution control device.

In part i, the respondent is asked to indicate whether treatment in the recirculating loop also treats wastewater from other processes. One commenter (SMA) is concerned that “the question does not account for the transfer of water from another system that is not treated, but is not discharged directly either. EPA should provide a category for recycling waters from unit to unit, so that EPA can make a better determination of the quantity of water recycled.”

**Response A:**

Note: This question has become Detailed Survey Question 2G-11.h.

Detailed Survey Question 2G-11.n requests all sources for water addition to the WAPC system. This question will capture information regarding water that has been transferred from another system. As stated in the survey General Instructions, respondents may use the Comments page located at the end of each section to clarify or provide additional information regarding any response.

**Summary B:**

In parts l, m, and o, the respondent is asked to provide the average recirculation rate of water through a system, the average rate at which water is added to a system, and the average discharge rate from a system, respectively, in gallons per minute (gpm), hours per day, and days per year. One commenter (SMA) notes that the three parts of each of these questions ask for the same information.

**Response B:**

Note: These questions have become parts l, m and o of Detailed Survey Question 2G-11.

EPA disagrees with SMA's comment. These three units of measurement are not identical. One cannot be replaced with the other. EPA has, however, modified Question 2G-11.m to request data in gallons per day and days per year, as recommended in a previous comment. The Agency has also modified Question 2G-11.o to request the data in either gallons per minute, hours per day, and days per year; or gallons per day and days per year.

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**Subject:** QUESTION 2G-17

Note: This question has become Detailed Survey Question 2G-12 due to survey revisions and updates.

**Comment**

**Numbers:** W3.186.P12, W6.35.P4

**Commenters:** SSINA (1), SMA (1)

**Summary:**

Question 2G-17 consists of several questions for which respondents need to provide responses for each EAF-related SWAPC device.

One commenter (SMA) says that "semi-wet system describes such operations as coke ovens, which are not used in EAF steel production. EPA should strike this question in its entirety."

Another commenter (SSINA) says that EPA should "delete this entire question [because] semi-wet systems do not produce discharges and are not important to ELG development."

**Response:**

EPA disagrees with SMA's comment. The term "semi-wet" is defined at 40 CFR 420.41(e), and has been defined as such since the 1982 rulemaking (as amended in 1984).

In addition, the Agency is unaware of, and is unable to locate information regarding, semi-wet systems that describe coke oven operations.

EPA also disagrees with SSINA's comment. Question 2G-12 requests information on the operation of SWAPC systems and whether wastewater discharges normally occur. This information is needed in order to properly estimate costs and pollutant loadings associated with proposed regulatory options.

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**Subject:** QUESTION 2G-19

**Note:** This question has become Detailed Survey Question 2G-14 due to survey revisions and updates.

**Comment**

**Numbers:** W4.159.P20

**Commenters:** AISI (1)

**Summary:**

Question 2G-19 asks (a) whether any water is used at or near the EAF shop for slag quenching or cooling, (b) how much is typically used, and (c) what are the sources of water used for slag quenching or cooling.

The commenter (AISI) suggests that "this question should specify what type of slag is being quenched at or near the EAF shop. The volume of cooling water used for slag quenching is not typically measured."

**Response:**

EPA agrees with the first part of AISI's comment, and has modified part a of this question to ask if any water is used for quenching or cooling of slag produced at the EAF shop.

EPA acknowledges the second part of AISI's comment. As stated in the survey General Instructions, respondents are required to provide best engineering estimates when data are not readily available.



**Subject:** AGGREGATE

**Comment  
Numbers:** W3.3.P2, W3.4.P2, W3.5.P2

**Commenters:** SSINA (3)

**Summary:**

One commenter (SSINA) suggests that “EPA could shorten the questionnaire by aggregating all refining steps (argon/oxygen decarburization, degas, argon stirring, etc) and casting steps into single response sheets. This would make the responses to questions regarding these processes less redundant.”

**Response:**

The complexity of these processes prevents the Agency from aggregating all refining steps and casting steps into single response sheets; however, if a site’s processes are not complex, the respondent will incur a significantly lower level of burden to complete these sections.

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**Subject:** SECTION 2H

**Comment  
Numbers:** S1.7.P1

**Commenters:** SSINA meeting 12/4/97 (1)

**Summary:**

During a trade association (SSINA) meeting, it was suggested that EPA should not ask for data at each vacuum degassing (VD) station since records are not typically kept that way. If the site has multiple VD stations, EPA should ask for data for the set of stations combined.

**Response:**

EPA agrees with SSINA’s comment, and has revised this section to request data regarding VD processes. The section contains instructions which explain: “If multiple vacuum degassing stations share a common vacuum system, or if there are multiple small degassing stations in one shop, these stations may be counted as one process.”

**Subject:** FUNCTION

**Comment**

**Numbers:** W1.46.P4, W4.162.P20, W4.173.P21

**Commenters:** AK Steel (1), AISI (2)

**Summary:**

Two commenters (AK Steel, AISI) remarked that the functions of the vacuum degassing station [Question 2H-1.e] are not needed for the purpose of this document.

AISI commented that, “The functions of the LMF [Question 2I-1.e] are not relevant to the plant water use and discharge. This question should be deleted.”

**Response:**

Note: These questions have become Detailed Survey Questions 2H-1.g and 2I-1.g, respectively, due to survey revisions and updates.

EPA disagrees with the commenters. The Agency needs information regarding the function of the vacuum degassing process in order to determine what types of vacuum degassing stations are operated with or without the generation of wastewater and also to determine whether this is a basis for subcategorization or segmentation of the industry.

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**Subject:** QUESTION 2H-1.F

Note: This question has become Detailed Survey Question 2H-2 due to survey revisions and updates.

**Comment**

**Numbers:** W3.98.P13

**Commenters:** SSINA (1)

**Summary:**

Question 2H-1.f asks respondents to indicate alloying elements which are typically charged to the ladle at this vacuum degassing station.

One commenter (SSINA) suggests that “EPA should modify this question. In the first sentence, the word ‘typically’ should be removed.”

**Response:**

EPA agrees with SSINA's comment, and has removed the word "typically," and modified the question to request the identification of raw materials and alloying elements charged to the vacuum degassing process in 1997.

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**Subject:** VACUUM DEGASSING SYSTEM

Note: This question has become Detailed Survey Question 2H-3 due to survey revisions and updates.

**Comment**

**Numbers:** W4.165.P20

**Commenters:** AISI (1)

**Summary:**

One commenter (AISI) says that for Question 2H-2.a, "a vacuum degasser has a series of steam ejectors and barometric condensers that operate as one system to create a vacuum. They operate off of one common recirculating water system. It does not make sense nor provide any useful information to answer 2H-2.a through 2H-2.o independently for each ejector and barometric condenser. The questions should be drafted so that a response can be provided for each independent system."

**Response:**

EPA agrees with AISI's comment, and has modified this question to request responses for each "operable wet air pollution control (WAPC) system or operable vacuum system (which can be made up of a set of barometric condensers or steam ejectors)." The question-specific instructions further clarify: "A WAPC or vacuum system may include multiple devices serving the same processing unit."

**Subject:** SECTION 2I

**Comment**

**Numbers:** W4.171.P21, S1.8.P1

**Commenters:** AISI (1), SSINA meeting 12/4/97 (1)

**Summary A:**

For Section 2I - Ladle Metallurgy (and Other Refining Processes), one commenter (AISI) asked, “if there is no water involved in the process, does the section of the questionnaire need to be completed?”

**Response A:**

EPA needs information from all plants and processes surveyed, including sites that are “zero dischargers” and sites that practice alternative disposal methods, in order to study candidate technologies for regulatory options. A technology that results in zero discharge from a plant or process may be a candidate for regulatory options. If a ladle metallurgy process results in zero discharge of process wastewater from that process, the site respondent will incur significantly reduced burden to complete the applicable survey section, since the site respondent will often answer “not applicable” to questions regarding process wastewater.

**Summary B:**

During a trade association (SSINA) meeting, it was suggested that EPA should not ask for data at each ladle metallurgy station since records are not typically kept that way. If the site has multiple LMF stations, EPA should ask for data for the set of stations combined.

**Response B:**

EPA agrees with SSINA’s comment, and has modified this section to request responses for each “operable ladle metallurgy process on site.” The section-specific instructions further clarify: “If there are multiple small ladle metallurgy stations of the same type in one shop, these stations may be counted as one process.”

**Subject:** QUESTION 2I-1

**Comment**

**Numbers:** W1.48.P4, W1.49.P4, W3.106.P13, W3.107.P13, W3.108.P13, W6.18.P5

**Commenters:** AK Steel (2), SSINA (3), SMA (1)

**Summary A:**

Question 2I-1 consists of several questions for which respondents need to provide responses for each ladle metallurgy or other refining station.

In part d, respondents are asked to indicate which type of ladle metallurgy process occurs at this station. One commenter (SSINA) suggests that “EPA should add alloy additions to the list of processes in this question. This will clarify the question.”

**Response A:**

Note: This question has become Detailed Survey Question 2I-1.a due to survey revisions and updates.

EPA has not modified this question to give “alloy additions” as a response option because, although alloying elements may be charged to the ladle metallurgy process, “alloy additions” is not a type of ladle metallurgy operation. The Agency has; however, provided “alloy additions” as a response option to Detailed Survey Question 2I-1.g, which requests the function of the ladle metallurgy operation.

**Summary B:**

In part e, respondents are asked to indicate the functions of the ladle metallurgy station. One commenter (AK Steel) states that “the functions of the LMF are not relevant to the plant water use and discharge.”

Two commenters (SSINA, SMA) suggest that “EPA should add alloy additions to the list of processes in this question, or substitute it in place of the term ‘composition control.’ This will clarify the question.”

**Response B:**

Note: This question has become Detailed Survey Question 2I-1.g due to survey revisions and updates.

EPA needs information regarding the function of the ladle metallurgy process in order to determine what types of ladle metallurgy stations are operated with or without the generation of wastewater and also to determine whether this is a basis for subcategorization or segmentation of the industry.

EPA agrees with SSINA's and SMA's comment, and has replaced the term "composition control" with "alloy additions."

**Summary C:**

In part f, respondents are asked to indicate alloying elements which are typically charged to the ladle at the ladle metallurgy station. One commenter (AK Steel) suggests that "the alloying elements being charged are not necessary. These additives depend on the production orders. This question should be dropped."

**Response C:**

Note: This question has become Detailed Survey Question 2I-2 due to survey revisions and updates.

EPA has modified this question to remove the word "typically" and the request for the percentage represented by each material. The Agency needs the identifications of raw materials and alloying elements in order to identify sources of potential pollutants of concern in waste streams associated with the ladle metallurgy process.

**Summary D:**

In part g, respondents are asked how much molten steel (in tons per day) is refined at this ladle metallurgy station. One commenter (SSINA) suggests that "EPA should modify the first sentence by deleting the words 'in tons per day'."

**Response D:**

EPA has removed this question; therefore, SSINA's comment is no longer applicable.

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**Subject:** QUESTION 2J-3

Note: These questions have become Detailed Survey Question 2J-2 due to survey revisions and updates.

**Comment**

**Numbers:** W1.50.P4, W3.116.P14, W3.118.P14, W3.119.P14, W3.122.P15,  
W4.180.P22

**Commenters:** AK Steel (1), SSINA (4), AISI (1)

**Summary A:**

Question 2J-3 consists of several questions for which respondents need to provide responses for each continuous caster.

In parts c and d, respondents are asked to indicate the number of strands on the caster and the type of cast product produced. One commenter (SSINA) suggests “EPA should explain how the number of strands and the shape of the cast steel have any impact on the ELG process.”

In part d, respondents are asked to indicate the type of cast product produced by the continuous caster and the typical dimensions each shape is capable of casting. Two commenters (AK Steel, AISI) state that “the typical dimensions of the caster products are irrelevant. This question should be deleted.”

**Response A:**

Note: These questions have become Detailed Survey Questions 2J-2.c and 2J-2.g.

EPA needs the information requested in part c in order to evaluate the relationship between water usage, wastewater generation, and pollutant loadings to the number of strands per caster.

EPA needs the information requested in part g in order to evaluate possible subcategorization of the industry. Because of the variance in product dimensions, different products may generate significantly different volumes of wastewater on a production basis (i.e., gallons of wastewater per ton of product cast).

**Summary B:**

In part r, respondents are asked to indicate the sources of water addition for each continuous caster. One commenter (SSINA) requests that EPA delete this question. “This question does not address issues relevant to the development of ELGs for process wastewater.”

**Response B:**

Note: This question has become Detailed Survey Question 2J-2.p due to survey revisions and updates.

EPA needs information regarding sources of water addition for each continuous caster to characterize the WAPC system and the quality of water that is required, and in order to identify reused or cascaded water sources.

**Subject:** QUESTION 2K-1

**Comment  
Numbers:** W3.128.P15

**Commenters:** SSINA (1)

**Summary:**

Question 2K-1 requests respondents to indicate the name by which their site refers to this hot forming process. One commenter (SSINA) requests that EPA delete this question. “This question does not address issues relevant to the development of ELGs for process wastewater.”

**Response:**

EPA disagrees with SSINA’s comment. EPA needs this identification in order to correlate information gathered in the survey and combine it with information gathered through mechanisms other than the survey. In addition, the Agency needs this identification in order to distinguish between multiple responses to Detailed Survey Section 2K as well as Short Survey Section 2A.

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**Subject:** QUESTION 2K-9.A

Note: This question has become Detailed Survey Question 2K-6.a and Short Survey Question 2A-4.a due to survey revisions and updates.

**Comment  
Numbers:** W1.52.P4, W4.189.P24

**Commenters:** AK Steel (1), AISI (1)

**Summary:**

Question 2K-9.a asks whether scarfing is performed on this mill. Two commenters (AK Steel, AISI) write that scarfing is not done in some hot mills, but it is done in conjunction with hot mills.

**Response:**

EPA agrees with AK Steel’s and AISI’s comment, and has modified this question to ask: “Is scarfing performed in conjunction with this hot forming process.”



**Subject:** QUESTION 2K-10

Note: This question has become Detailed Survey Question 2K-11 due to survey revisions and updates.

**Comment**

**Numbers:** W1.53.P4, W2.3.P1, W4.190.P24, W5.3.P1, W6.30.P6, M3.16.P3

**Commenters:** AK Steel (1), STI (1), AISI (1), Wheatland (1), SMA (1), STI meeting 11/20/97 (1)

**Summary:**

Question 2K-10 asks respondents to describe the configuration of the hot forming mill.

Two commenters (AK Steel, AISI) say that “the number of stands is not necessary. The requirement to report the typical number of passes through an individual mill stand for the product with the highest production tonnage is an example of the detail required by this questionnaire which is either not collected or would require great effort to develop. Of what use would this information be? The wastewater characteristics are generated from the mill as a unit, not from the individual stands.”

Two commenters (STI, Wheatland) say that “this table does not relate to a continuous butt-weld pipe/tube mill as there is typically one forming roll, one welding roll, and several stretching reducing rolls followed by the sizing rolls before the pipe/tube is cut and cooled. What is the significance of this information?”

**Response A:**

EPA has modified this question to request the configuration of the hot forming process or mill from where the hot steel enters to where the semi-finished or finished product exits. The respondent is asked to complete one row of the table for each process station or mill stand. EPA needs the information requested in this table in order to evaluate the way water is used, how wastewater is generated at the hot forming process, and what pollutants may be present due to the addition of forming/rolling solutions. In addition, it is important to understand how wastewater is currently collected and treated (in scale pits) to properly estimate costs associated with proposed regulatory options.

EPA has removed the requirement for the typical number of passes through an individual mill stand. The Agency has also modified the table to capture information from butt-weld pipe/tube mills.

**Summary B:**

One commenter (SMA) suggests that “EPA should ask only how many passes there are for each stand, which would provide EPA all of the information it needs to develop ELGs for hot forming facilities.”

**Response B:**

The Agency has made several modifications to this table, one of which eliminates the request for the typical number of passes. Please refer to Response A for the justification of this table.

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**Subject:** QUESTION 2K-12

**Comment**

**Numbers:** W4.191.P24, M3.17.P3

**Commenters:** AISI (1), STI meeting 11/20/97 (1)

**Summary A:**

Question 2K-12 asks respondents to indicate products rolled at the hot forming mill. One commenter (AISI) asks whether “the shape of the product rolled in the hot forming mill is relevant.”

**Response A:**

Note: This question has become Detailed Survey Question 2K-12.a and Short Survey Question 2A-7.a due to survey revisions and updates.

EPA needs this information in order to evaluate possible subcategorization and segregation of the industry. Because of the variance in product dimensions, different products may generate significantly different volumes of wastewater on a production basis (i.e., gallons wastewater per ton of product cast). EPA will use the information provided in response to this question to determine a reasonable and appropriate production-normalizing factor when developing production-based regulatory options. EPA will consider several options for a measure of hot forming production, including the surface area of the products formed in the hot forming process. In addition, EPA will consider as a possible subcategorization or segmentation factor the configuration of the hot forming process and whether products of one size versus products of many sizes and dimensions are formed.

**Summary B:**

During EPA's meeting with STI, trade association members stated that rounds are the same as billets, and pipe and tubes can be combined into one category.

**Response B:**

EPA has modified this question to provide response options for "Billets (rectangular)" and "Billets (round)." The Agency has not combined pipes and tubes into one category because pipe diameter and tube diameter are measured differently.

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**Subject:** QUESTION 2K-14

Note: This question has become Detailed Survey Question 2K-13 and Short Survey Question 2A-11 due to survey revisions and updates.

**Comment**

**Numbers:** W3.187.P15, W6.29.P6

**Commenters:** SSINA (1), SMA (1)

**Summary:**

Question 2K-14 consists of several questions for each hot forming direct contact water system.

In parts j, k, and n, the respondent is asked to provide the average recirculation rate of water through a system, the average rate at which water is added to a system, and the average discharge rate, respectively, in gallons per minute (gpm), hours per day, and days per year. One commenter (SMA) notes that the three parts of each of these questions ask for the same information.

Another commenter (SSINA) suggests "a 'gallons per day' rate would be more appropriate here. The blow down rate is often intermittent and variable."

**Response:**

Note: These questions have become parts i, j, and l of Detailed Survey Question 2K-13, and parts g, h, and j of Short Survey Question 2A-11.

EPA disagrees with SMA's comment. These three units of measurement are not identical. One cannot be replaced with the other. EPA has, however, modified Question 2G-13.j to request data in gallons per day and days per year, as recommended by SSINA. The Agency has also modified Question 2G-13.l to request the data in either (1) gallons per minute, hours per day, and days per year; or (2) gallons per day and days per year.

**Subject:** QUESTION 2K-14.H

Note: Question 2K-14 has become Detailed Survey Question 2K-13 and Short Survey Question 2A-11 due to survey revisions and updates.

**Comment**

**Numbers:** W2.5.P2, W5.5.P1

**Commenters:** STI (1), Wheatland (1)

**Summary:**

Question 2K-14.h asks which treatment units and/or treatment processes are included in the recirculating loop of the hot forming direct contact water system. Two commenters (STI, Wheatland) ask, “what is the significance of specifying the manufacturing process of the source water?”

Note: This comment was written for Question 2K-14.h but appears to actually be in reference to Question 2K-14.l, which requests the identification of all sources for water addition and the percentage contributed by each source.

**Response:**

Note: Question 2K-14.l has become Detailed Survey Question 2K-13.k and Short Survey Question 2A-11.i.

EPA will use information regarding the manufacturing process of the source water to characterize the direct contact water system and the quality of water that is needed, and to identify reuse of process wastewater in other processes as a candidate technology for regulatory options.

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**Subject:** QUESTION 2K-15.N

Note: This question has become Detailed Survey Question 2K-14.o and Short Survey Question 2A-12.k due to survey revisions and updates.

**Comment**

**Numbers:** W3.134.P16

**Commenters:** SSINA (1)

**Summary:**

Question 2K-15.n requests the average discharge rate from the hot forming mill-related wet air pollution control system and the period of discharge. One commenter (SSINA)

suggests that “a ‘gallons per day’ rate would be more appropriate. The blowdown rate is often intermittent and variable.”

**Response:**

EPA agrees with SSINA’s comment, and has modified this question to request data either in (1) gallons per minute, hours per day, and days per year; or in (2) gallons per day and days per year. The respondent may choose to provide data in the units most appropriate to the site.

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**Subject:** SOURCE

**Comment**

**Numbers:** W2.7.P2, W2.12.P2, W2.19.P2, W2.22.P2, W5.7.P1, W5.12.P1, W5.19.P2, W5.22.P2, M3.18.P3, S1.4.P1

**Commenters:** STI (4), Wheatland (4), STI meeting 11/20/97 (1), SSINA meeting 12/4/97 (1)

**Summary A:**

Throughout the survey, EPA asks respondents to answer questions about sources which generate process wastewater not associated with a process (e.g., hot forming, cold forming, surface treatment, utility operations) related wet air pollution control device.

Two commenters (STI, Wheatland, STI meeting) indicate that “the instructions for these sections are not clear. What ‘sources’ are intended and what area is meant by ‘site’?”

**Response A:**

The Agency has modified the instructions accompanying the “other source” question (i.e., Detailed Survey Question 2K-16) to ask “Excluding direct contact water systems, WAPC systems, or storm water, how many other wastewater sources are present?” Similar questions in other sections have been modified similarly.

**Summary B:**

During a trade association (SSINA) meeting, members also inquired as to why equipment wash down water was not included in the Section 2 subsections in questions asking about “other sources” of wastewater.

**Response B:**

EPA has modified questions regarding “other sources” of wastewater throughout Section 2 to give “equipment cleaning and washdown water” as a response option.

**Subject:** QUESTION 2L-5

Note: This question has become Detailed Survey Question 2M-8 due to survey revisions and updates.

**Comment**

**Numbers:** W1.56.P4, W2.9.P2, W4.199.P25, W5.9.P1

**Commenters:** AK Steel (1), STI (1), AISI (1), Wheatland (1)

**Summary:**

Question 2L-5 asks respondents to describe the configuration of this cold forming mill.

Two commenters (AK Steel, AISI) suggest that “the configuration of the cold forming mill is not relevant and should be deleted.”

Two commenters (STI, Wheatland) say that “this table is not relevant to an ERW pipe/tube mill.”

**Response:**

EPA disagrees with AK Steel’s and AISI’s comment. The Agency needs the information requested in this table in order to evaluate the way water is used and wastewater is generated at the cold forming process, and what pollutants may be present due to the addition of forming/rolling solutions. In addition, it is important to understand how wastewater is currently collected and treated in order to properly estimate costs associated with proposed regulatory options

EPA agrees with STI’s and Wheatland’s comment, and has modified the table to capture information from electrical resistance weld pipe/tube mills.

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**Subject:** QUESTION 2L-6

Note: This question has become Detailed Survey Question 2M-9 and Short Survey Question 2A-7 due to survey revisions and updates.

**Comment**

**Numbers:** W3.141.P16, M3.19.P3

**Commenters:** SSINA (1), STI meeting 11/20/97 (1)

**Summary:**

Question 2L-6 asks respondents to indicate products rolled on this cold forming mill.

One commenter (SSINA) suggests that “this question be deleted. This question does not address issues relevant to the development of ELGs for process wastewater.”

During a trade association (STI) meeting, it was suggested that butt-weld pipe and butt-weld tube should be deleted from this question. Butt-weld pipe and tubes are hot formed products. STI also suggests that “cold rolling” and “cold working” should be segregated from “cold forming.”

**Response:**

The Agency needs the information requested in this table in order to evaluate possible subcategorization of the industry. Because of the variance in product dimensions, different products may generate significantly different volumes of wastewater on a production basis (i.e., gallons wastewater per ton of product cast). This information will be used to determine a reasonable measure of actual production for use in developing production-based regulatory options. EPA will consider several options for a measure of cold forming production, including the surface area of the products formed in the cold forming process. In addition, EPA will consider as a possible subcategorization or segmentation factor the configuration of the cold forming process and whether products of one size versus products of many sizes and dimensions are formed.

EPA has removed “Butt-weld pipes” and “Butt-weld tubes” from the list of given response options. As discussed in the responses regarding the definitions of these terms, EPA has included a “cold forming” definition that encompasses cold rolling and cold working processes, as described in Materials Science and Engineering: An Introduction (William D. Callister, Jr.)(3rd ed. 1994).

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**Subject:** QUESTION 2L-13.N

Note: This question has become Detailed Survey Question 2M-12.o and Short Survey Question 2A-12.k due to survey revisions and updates.

**Comment**

**Numbers:** W3.146.P17

**Commenters:** SSINA (1)

**Summary:**

Question 2L-13.n requests the average discharge rate from the cold forming mill-related wet air pollution control system and the period of discharge. One commenter (SSINA) suggests that “a ‘gallons per day’ rate would be more appropriate. The blowdown rate is often intermittent and variable.”

**Response:**

EPA agrees with SSINA's comment, and has modified this question to request data either in (1) gallons per minute, hours per day, and days per year; or in (2) gallons per day and days per year. The respondent may choose to provide data in the units most appropriate to the site.

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**Subject:** SECTION 2M

**Comment**

**Numbers:** W2.14.P2, W5.14.P2, M3.20.P3

**Commenters:** STI (1), Wheatland (1), STI meeting 11/20/97 (1)

**Summary:**

During a trade association (STI) meeting, members stated that this section is apt to lead to confusion because of the number of operations covered and should be segmented.

Two commenters (STI, Wheatland) state that Section 2M - Surface Treatment and Annealing "in its present format is impossible to accurately complete. For example, one acid pickling operation consisting of five acid tanks and three rinse tanks serves two separate galvanizing lines, plus some of the pipe that is pickled is not galvanized but dipped in another corrosion inhibitor. Furthermore, not all pipe is alkaline cleaned prior to acid pickling."

**Response:**

EPA agrees with STI, and has replaced the Surface Treatment and Annealing Section with Detailed Survey Section 2L: Acid Pickling and Descaling, Detailed Survey Section 2N: Cleaning and Coating, and Short Survey Section 2B: Surface Treatment. EPA has structured these sections to include questions (e.g., Detailed Survey Questions 2L-8 and 2N-8, and Short Survey Question 2B-8) which allow for the description of batch processes.



**Subject:** QUESTION 2M-3

Note: This question has become Detailed Survey Questions 2L-4.a and 2N-3.a due to survey revisions and updates.

**Comment**

**Numbers:** M3.21.P3

**Commenters:** STI meeting 11/20/97 (1)

**Summary:**

Question 2M-3 requests the total rated capacity of the surface treatment and annealing operations process line or area. During a trade association (STI) meeting, members questioned why EPA needs total rated capacity information.

**Response:**

EPA needs the information requested in these questions in order to understand the maximum production (and associated wastes) that could be expected at the process. Operating hours will be used to determine production per hour, which in turn will be used to estimate the maximum daily production that could be expected. Annual and daily production capacity is the upper bound in EPA's analysis to determine a production basis for the rule.

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**Subject:** QUESTION 2M-4

Note: This question has become Detailed Survey Questions 2L-5 and 2N-5, and Short Survey Question 2B-5 due to survey revisions and updates.

**Comment**

**Numbers:** W3.153.P17

**Commenters:** SSINA (1)

**Summary:**

Question 2M-4 asks respondents to indicate the steel surface treatment or annealing operations performed at this process line or area and to indicate the number of each type of process in this process line or area.

One commenter (SSINA) states that "electrolytic sodium sulfate does not seem to fit in any of these process categories yet it is a typical process for stainless steel processing."

**Response:**

EPA agrees with SSINA, and has provided a “Descaling - electrolytic sodium sulfate” response option in Detailed Survey Question 2L-5.

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**Subject:** QUESTION 2M-10

Note: This question has become Detailed Survey Questions 2L-8 and 2N-8, and Short Survey Question 2B-8 due to survey revisions and updates.

**Comment**

**Numbers:** W1.14.P2, W1.59.P4, W1.60.P4, W2.15.P2, W3.156.P17, W3.157.P17, W4.210.P26, W4.211.P26, W4.212.P26, W5.15.P2

**Commenters:** AK Steel (3), STI (1), SSINA (2), AISI (3), Wheatland (1)

**Summary A:**

Question 2M-10 asks a series of questions about each unit or bath in a process line or area.

One commenter (AK Steel) notes that “many of the questions request information on individual units, such as Question 2M-10, and the responses would be misleading. These questions should be changed to reflect the system, not the units.

In part a, respondents are asked to indicate the name by which the site refers to the unit or bath. Two commenters (AK Steel, AISI) ask “is it necessary to have a separate sheet for each pickling and rinse tub?” Another commenter (AISI) suggested that “the question should be drafted to address the entire system, not the individual units that comprise the system.”

**Response A:**

EPA agrees with the commenters, and has modified each part of the question to request information for each type of operation including its associated rinse. In addition, the question-specific instructions state: “For example, two electroplating baths followed by two rinses only need one response to [this] Question.”

**Summary B:**

In part b, respondents are asked to indicate the operation performed in the unit or bath. Two commenters (STI, Wheatland) state “steel that is to be hot dipped galvanized often requires a preflux treatment in a water solution of zinc ammonium salts. That is not reflected in the section.”

Another commenter (SSINA) indicates that “EPA should add boxes for neutral, acidic, and alkaline salts.”

**Response B:**

Note: This question has become Detailed Survey Questions 2L-8.b and 2N-8.b, and Short Survey Question 2B-8.b.

EPA agrees with AK Steel’s comment, and has modified Detailed Survey Question 2N-8.b and Short Survey Question 2B-8.b to give “Surface activation (fluxing)” as a response option. EPA has not made the modification suggested in SSINA’s comment because site respondent can check “Other” and specify the type of salt used in the operation.

**Summary C:**

In parts c and d, respondents are asked to indicate the previous operation and the next operation. One commenter (AK Steel) asks “is this level of detail necessary even when a diagram is being provided?”

For part c, another commenter (SSINA) indicates that “EPA should add boxes for neutral, acidic, and alkaline salts.”

**Response C:**

Note: This question has become parts c and d in Detailed Survey Questions 2L-8 and 2N-8 and Short Survey Question 2B-8.

EPA needs the information requested in these questions in order to understand the configuration of operations on the line or in the area, and in order to understand how they might relate to wastewater generation and pollutant loadings.

EPA has not made the modification suggested in SSINA’s comment because respondents can check “Other” and specify the type of salt used in the operation.

**Summary D:**

In part h, respondents are asked to indicate the method by which the solution is heated. One commenter (SSINA) suggests that this question be deleted. “This information raises issues which are not relevant for the development of ELGs for process wastewater.”

**Response D:**

Note: This question has become Detailed Survey Questions 2L-8.f and 2N-8.h, and Short Survey Question 2B-8.h.

EPA will use the information requested in these questions to evaluate whether heating operations affect the rate of wastewater generation and wastewater pollutant loadings. For example, direct steam injection can increase wastewater generation rates. In addition, heating operations may impact air emissions from these operations; therefore, EPA will use this information to evaluate possible non-water quality environmental impacts associated with proposed regulatory options.

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**Subject:** QUESTION 2M-11

**Note:** This question has become Detailed Survey Question 2L-9 and Short Survey Question 2B-9 due to survey revisions and updates.

**Comment**

**Numbers:** W2.16.P2, W2.17.P2, W3.158.P18, W3.159.P18, W3.160.P18, W5.16.P2, W5.17.P2

**Commenters:** STI (2), SSINA (3), Wheatland (2)

**Summary A:**

Question 2M-11 asks a series of questions regarding acid regeneration plants. One commenter (SSINA) suggests that “EPA should clarify that companies need only complete these questions if their acid regeneration plants contribute to a process water discharge.”

**Response A:**

EPA needs information from all plants and processes surveyed, including sites that are “zero dischargers” and sites that practice alternative disposal methods, in order to study candidate technologies for regulatory options. A technology that results in zero discharge from a plant or process may be a candidate for regulatory options.

**Summary B:**

In part d, respondents are asked to provide the name of the manufacturer of the acid regeneration plant. Two commenters (STI, Wheatland) say that “the manufacturer of the acid regeneration system is not pertinent.”

Another commenter (SSINA) suggests that EPA should delete this question because it “does not address issues relevant to the development of ELGs for process wastewater.”

**Response B:**

The Agency needs this information in order to conduct an analysis of wastewater generation and pollutant loadings, as well as non-water quality environmental impacts, associated with acid regeneration operations. The manufacturer may be an indicator of the type of plant, how it is operated, and the wastes that it generates.

**Summary C:**

In part f, respondents are asked to list the waste sludges or by-product materials which are produced by the acid regeneration plant. Two commenters (STI, Wheatland) say that “sludges or by-products that do not result in wastewater discharges are irrelevant to the purpose of this survey.”

Another commenter (SSINA) adds that this question should be deleted because “this question does not address issues relevant to the development of ELGs for process wastewater.”

**Response C:**

Note: This question has become Detailed Survey Question 2L-9.e and Short Survey Question 2B-9.e.

The Agency needs the information requested in this question in order to conduct an analysis of wastewater generation and pollutant loadings, as well as non-water quality environmental impacts, associated with acid regeneration operations.

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**Subject:** SECTION 2N

Note: This Section has become Section 2P: Utility Operations due to survey revisions and updates.

**Comment**

**Numbers:** W1.61.P4, W3.166.P18, W4.217.P27, M3.22.P3

**Commenters:** AK Steel (1), SSINA (1), AISI (1), STI meeting 11/20/97 (1)

**Summary A:**

Two commenters (AK Steel, AISI) state that it is not necessary to include Section 2N - Utility Operations in this survey. This section deals with treating incoming water for use in the plant, such as cooling water and process water makeup, not wastewater. The Steam and Power ELGs would apply to these operations.

**Response A:**

EPA does not agree with AK Steel's and AISI's comment. Many of the Steam and Power Generation operations at iron and steel sites would not be covered by the Steam and Power Generation Effluent Limitations Guidelines and Standards. Therefore, EPA intends to consider all sources of process wastewater associated with iron and steel manufacturing operations in the development of Iron and Steel Industry Effluent Limitations Guidelines and Standards.

**Summary B:**

Another commenter (SSINA) suggested that "EPA should clarify that this section only refers to sources related to steam or power generating facilities."

**Response B:**

EPA has clarified the section-specific instructions to indicate that this section refers to only operable intake water treatment and steam and power generation systems.

**Summary C:**

During a trade association (STI) meeting, members suggested that EPA ask for a utility process water flow diagram.

**Response C:**

EPA agrees with STI's comment, and has included Detailed Survey Question 2P-1.e to request a process flow diagram showing each intake water treatment system, and Detailed Survey Question 2P-2.d to request a process flow diagram showing the steam or power generation plant and the water use associated with that plant.

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**Subject:** QUESTION 2N-1

Note: This question has become Detailed Survey Question 2P-1 due to survey revisions and updates.

**Comment**

**Numbers:** W2.20.P2, W3.168.P18, W5.20.P2, M3.23.P3

**Commenters:** STI (1), SSINA (1), Wheatland (1), STI meeting 11/20/97 (1)

**Summary A:**

Question 2N-1 asks a series of questions about water treatment systems used to treat incoming water prior to use in manufacturing processes and/or utility operations.

In part e, respondents are asked to indicate chemical additions to the water treatment system. One commenter (SSINA) suggests that “EPA should add salt as a choice of chemical additions.”

**Response A:**

Note: This question has become Detailed Survey Question 2P-1.f.

EPA agrees with SSINA’s comment, and has modified this question to give “salt” as a response option.

**Summary B:**

In part f, respondents are asked to indicate the manufacturing operations which are the destinations of the treated water from the water treatment system. Two commenters (STI, Wheatland) say that “the treated water destination is irrelevant.”

**Response B:**

Note: This question has become Detailed Survey Question 2P-1.j.

EPA disagrees with STI’s and Wheatland’s comment. EPA needs this information in order to evaluate the quality of water that is needed for on-site manufacturing processes.

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**Subject:** QUESTION 2N-2

Note: This question has become Detailed Survey Question 2P-2 due to survey revisions and updates.

**Comment**

**Numbers:** W2.21.P2, W5.21.P2

**Commenters:** STI (1), Wheatland (1)

**Summary:**

Question 2N-2 asks a series of questions about steam generation or power generation plants. Two commenters (STI, Wheatland) state that “all of this information is irrelevant.”

**Response:**

EPA disagrees with STI’s and Wheatland’s comment. Each part of Detailed Survey Question 2P-2 which requests information regarding steam generation or power

generation is justified in ICR Section 4(b). EPA needs this information in order to characterize all process wastewaters related to iron and steel manufacturing operations.

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**Subject:** SECTION 3

**Comment**

**Numbers:** W3.173.P19, W6.33.P6, M4.9.P3

**Commenters:** SSINA (1), SMA (1), SSINA meeting 12/4/97 (1)

**Summary A:**

One commenter (SSINA) states: “The questions in this section [Section 3. Wastewater Treatment Information] are redundant, extremely burdensome, and unnecessary for the development of ELGs. In particular, it would be extremely burdensome and unnecessary to complete section 3B for each treatment unit. Each treatment system may have a dozen or more treatment units. Besides, treatment units, process flow information, sources of wastewater, and points of chemical addition already are provided in section 3A. It would be more appropriate for EPA to request batch or continuous treatment information and chemical addition information in section 3A for each treatment system, not each treatment unit. In addition, ELGs are not developed for each treatment unit, therefore, pollutant parameter information on a per unit basis is totally irrelevant.”

**Response A:**

EPA acknowledges SSINA’s comment, and has made several modifications to Detailed and Short Survey Sections 3 to remove the redundancy and ease the burden. The modified sections no longer contain a subsection to be copied and answered for each treatment unit. Instead, the Agency has included all treatment system questions in Section 3A, to be completed once per system. EPA has modified the question requesting PFDs to request a diagram that shows the wastewater treatment system with appropriate wastewater treatment unit codes (Note: EPA provides a list of wastewater treatment unit codes in the question-specific instructions.) However, some questions in Section 3A still request data on a unit-specific basis. For example, Question 3A-4 requests a list of all sources that enter the treatment system, the flow rate, and the receiving treatment unit code. Question 3A-5 requests, by unit code, the design capacity flow, the design parameters, the installation year, and if the unit is operated on a batch or continuous basis. EPA needs this information on a unit basis in order to characterize each treatment unit, in order to determine the capacity the unit has to handle any additional flows associated with the model technologies being considered, and in order to determine if any treatment units are nearing the end of their service life.



**Summary B:**

One commenter (SMA) suggests that “in section 3 of the survey, EPA should clarify whether this is a dedicated section for plant-wide wastewater treatment operations only, or for information that was already requested in earlier sections of the survey on the various processes used to make steel.”

**Response B:**

Instructions for Section 3A specify that EPA is requiring information about all wastewater treatment which occurs at the site, except treatment of sanitary wastewater. These instructions define three types of treatment systems: in-process wastewater treatment systems (treatment systems identified in earlier sections of the survey), wastewater pretreatment systems, and end-of-pipe (final) treatment systems.

EPA acknowledges that some basic information regarding in-process treatment systems are gathered in the Section 2 subsections; however, Section 3 collects more detailed information (e.g., wastewater flow rates for all sources, chemical addition flow rates). The Agency needs these data in order to perform costing analyses.

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**Subject:** SECTION 3A

**Comment**

**Numbers:** S1.2.P1

**Commenters:** AISI meeting 12/12/97 (1)

**Summary:**

During a trade association (AISI) meeting, it was mentioned that although some data do exist that would be of interest to this study, EPA should be clear to not request low quality data such as field tests and routine parameter monitoring as is typically performed by treatment operators.

**Response:**

EPA agrees with AISI's comment, and has modified questions to request data collected and analyzed by EPA-approved methods as described at 40 CFR Part 136.

**Subject:** QUESTION 3A-2

**Comment**

**Numbers:** W1.63.P5, W4.222.P28

**Commenters:** AK Steel (1), AISI (1)

**Summary A:**

Question 3A-2 asks respondents to identify the treatment units in this system. Two commenters (AK Steel, AISI) ask “why is it necessary to complete a questionnaire for this information; all of this would be shown on a flow diagram.”

**Response A:**

EPA acknowledges AK Steel’s and AISI’s comment, and has modified Section 3. The modified Section 3 requests a PFD that shows the wastewater treatment system with appropriate wastewater treatment unit codes (Note: EPA provides a list of wastewater treatment unit codes in the question-specific instructions.) A PFD presents a significant amount of technical data in a simple visual representation. EPA needs the PFD(s) requested in Section 3 in order to study the interaction of all components of the wastewater treatment system. Subsequent section questions request additional information regarding each of these unit codes because this additional information, due to its detail, is best requested in tabular format.

**Summary B:**

The commenters (AK Steel, AISI) are unsure if cooling towers should be considered treatment units.

**Response B:**

The Agency does consider cooling towers to be treatment units and has clearly indicated this by including cooling tower on the list of treatment units provided in Detailed Survey Question 3A-3 and Short Survey Question 3A-1.

**Subject:** QUESTION 3A-3

**Comment  
Numbers:** W4.228.P29

**Commenters:** AISI (1)

**Summary:**

Question 3A-3 asks respondents to provide a process flow diagram showing the wastewater treatment system. The commenter (AISI) suggests that ferric chloride shown on the example diagram will not be very effective in reducing hexavalent chromium.

**Response:**

EPA agrees with AISI's comment, and has modified the example PFD to show the addition of sulfuric acid and ferrous sulfate into the hexavalent chromium reduction tank.

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**Subject:** TREATMENT SYSTEM COST

**Comment  
Numbers:** M4.11.P3, M5.8.P2, S1.9.P1, S1.10.P1, W3.9.P2, W3.175.P19, W4.220.P27, W4.223.P28, W4.224.P28, W4.226.P28

**Commenters:** SSINA meeting 12/4/97 (3), AISI meeting 12/12/97 (1), SSINA (2), AISI (4)

**Summary A:**

Two commenters (SSINA, AISI) remarked that in some instances treatment systems may have been constructed many years ago and cost data are no longer available. The commenters felt that the construction costs from many years ago would not be relevant based on new equipment and technologies that would be used today. It was suggested that if the cost of a technology was needed for ELG development, EPA should retain a consultant familiar with the processes to develop a cost estimate using current equipment and technology.

**Response A:**

EPA has eliminated the questions referred to in SSINA's and AISI's comment from the Detailed Survey and the Short Survey. EPA will, however, administer a Cost Survey that requests capital cost information for specific installations or upgrades. The Agency will send the Cost Survey to no more than 100 sites that have implemented candidate control technologies being considered for regulatory options. EPA needs capital cost information in order to perform economic analyses necessary for the development of regulatory options, including analyses of treatment technology costs and analyses of overall

wastewater treatment costs. EPA intends to incorporate this actual capital cost data into a cost model, and/or will use these data to verify cost model output when input costs have been obtained from vendors. In addition, EPA intends to combine these cost data with other wastewater treatment costs in order to determine the total cost that each site currently incurs in treating wastewater, and to determine the financial impacts that the various regulatory options may have on each site.

**Summary B:**

SSINA “recommends that EPA reorganize the survey. All financial information should be requested in Part B of the questionnaire instead of being interspersed throughout Part A. Centralizing all such information in Part B will make completing the questionnaire less burdensome.”

**Response B:**

EPA disagrees with SSINA’s comment. Each survey section is a grouping of related questions. EPA has requested information regarding surcharges paid to POTWs and PrOTWs in Section 1 because these questions are closely related to other POTW and PrOTW questions located in this section. The Agency has requested information regarding the wastewater treatment system 1997 operating and maintenance costs in Detailed Survey Section 2A (coke plant wastewater treatment systems) and Section 3A (all other wastewater treatment systems), as well as in Short Survey Section 3A, because this question is closely related to other treatment system operating questions.

**Summary C:**

SSINA commented that a complete definition for capital cost should be provided for Question 3A-6.

**Response C:**

EPA no longer requests capital cost data (e.g., purchased equipment, site preparation) in Section 3. The Agency will, however, administer a Cost Survey that requests capital cost data for a specific installation or upgrade. The Agency will send this Cost Survey to no more than 100 sites that have implemented candidate control technologies considered for regulatory options. EPA has formatted the Cost Survey to request specific capital cost data such that a respondent will not need a definition of “capital cost” in order to complete this survey.

**Summary D:**

SSINA commented that, “it may be extremely difficult for a facility to separate out operation and maintenance (O&M) costs for wastewater treatment systems from overall O&M costs.”

**Response D:**

EPA acknowledges SSINA's comment, but the Agency needs operating and maintenance cost data in itemized format in order to perform a separate cost analysis for each operating and maintenance category. EPA intends to use the information requested in this question to perform economic analyses necessary to the development of regulatory options, including analyses of treatment technology costs and analyses of overall wastewater treatment costs. EPA intends to combine the costs requested in this question with other treatment system costs to determine if the system technology is "economically achievable." In addition, EPA intends to combine the costs requested in this question with other wastewater treatment costs, to determine the total cost that each site currently incurs in treating wastewater, and to determine the financial impacts that other treatment technologies may have on each site.

As stated in the survey General Instructions, respondents may provide best engineering estimates when data are not readily available.

**Summary E:**

AISI commented that, "Cost data and information related to upgrades are generally no longer available."

**Response E:**

EPA has eliminated questions requesting upgrade cost information from the Detailed Survey and Short Survey. Because the Cost Survey will request capital cost data for recent installations or upgrades, EPA anticipates that cost data information will be available to the respondent. As stated in the survey General Instructions, respondents may provide best engineering estimates when data are not available.

**Summary F:**

AISI commented that, "The upgrades and costs of upgrades are not relevant. The current system would be shown on the flow diagrams. This question should be clarified to explain that upgrade costs should be expressed as costs incurred the year that the upgrade occurred, in terms of dollars in the year of original installation. If the latter method is used, this information is not likely to be readily available."

**Response F:**

The Agency has modified Detailed Survey Section 2A and Section 3, and Short Survey Section 3 to remove the request for the cost of each upgrade. However, EPA does not agree that upgrades and costs of upgrades are not relevant. The Cost Survey, a survey administered separately to no more than 100 sites, will request capital cost information regarding a specific installation or upgrade based in part on respondents' answers to

Detailed Survey Question 2A-26 and Question 3A-7, and Short Survey Question 3A-7. This question will provide EPA with information on the most recent upgrades/modifications being implemented by this industry. EPA intends to use the capital cost information gathered in the Cost Survey to perform economic analyses necessary to the development of regulatory options, including analyses of treatment technology costs and analyses of overall wastewater treatment costs. These capital costs for each upgrade/modification are requested for the year in which the upgrade/modification occurred. EPA intends to combine these costs with other treatment system costs to determine if the various regulatory options are economically achievable. In addition, EPA will combine these cost data with other wastewater treatment costs, to determine the total cost that each site currently incurs in treating wastewater, and to determine the financial impacts that proposed regulatory options may have on each site.

**Summary G:**

AISI commented that, “The year 1997 may not be representative of normal operations. For example, a long labor union strike occurring in 1997 would make all of these costs seem quite low. An average for the past three years of alternate means of costing should be used.”

**Response G:**

EPA acknowledges AISI’s comment, and has included a direction that states if a water system was not in operation during 1997 due to market conditions, major rebuilds, or labor disputes, the site respondent is instructed to provide data for the most recent calendar year when such circumstances did not exist. The Agency has not requested the average of several years worth of costing information because an average would not be comparable to data provided by other sites.

**Summary H:**

AISI commented that, “Energy costs for operation and maintenance of waste treatment plants may not be readily available. In addition, energy costs are not always a measure of the energy used from mill to mill, since the cost of energy can vary significantly from region to region.”

**Response H:**

EPA agrees with AISI, and has modified Detailed Survey Questions 2A-24 and 3A-6, and Short Survey Question 3A-6 to request energy costs and energy rates. As stated in the survey General Instructions, respondents may provide best engineering estimates when data are not readily available.

**Summary I:**

AISI commented that, “Maintenance and vendor costs would be presented better as a three- or five-year average. Requiring all mills to include data for one year (the same year) would be an erroneous source of information for use to determine an average cost for operating such plants. A better cost estimate must be made. Perhaps averaging over the last five years, or the most costly of the past five years, would better indicate actual costs.”

**Response I:**

EPA has not modified this question to request average or maximum annual maintenance and vendor costs. Operating and maintenance costs from 1997 are intended to provide the Agency with a snapshot of the current industry and a characteristic year upon which to base its analyses. EPA will use rate information given, as well as actual 1997 operating and maintenance costs. Also, EPA will combine these costs with vendor and other information related to operating and maintenance.

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**Subject:** SAMPLING AND ANALYSIS COST

**Comment**

**Numbers:** W4.219.P27

**Commenters:** AISI (1)

**Summary:**

AISI commented, “If plant costs [for Section 3] are considered an important part of the survey, the survey should request information on the costs involved in sampling and analysis.”

**Response:**

EPA agrees with AISI’s comment, and has modified Detailed Survey Questions 2A-24 and 3A-6, and Short Survey Question 3A-6 to request actual operating and maintenance costs for 1997, including costs for Sampling/Monitoring.

**Subject:** QUESTION 3A-6

**Comment  
Numbers:** W1.64.P5

**Commenters:** AK Steel (1)

**Summary:**

Question 3A-6 asks respondents to provide a summary of upgrades to the system which have occurred since the system was initially installed. It also asks respondents to provide the year of the upgrade and the capital cost in the dollars of the installation year (as indicated in Question 3A-4).

The commenter (AK Steel) says that “listing any upgrades and their costs is not necessary. The current system would simply be shown on the flow diagrams. Effectiveness of treatment systems is more important than their age or cost.”

**Response:**

The Agency has modified Detailed Survey Section 2A and Section 3, and Short Survey Section 3 to remove the request for the cost of each upgrade. However, EPA does not agree that treatment system age and cost is not important. The Cost Survey, a survey administered separately to no more than 100 sites, will request capital cost information regarding a specific installation or upgrade based in part on respondents’ answers to Detailed Survey Question 2A-26 and Question 3A-7, and Short Survey Question 3A-7. This question will provide EPA with information on the most recent upgrades/modifications being implemented by this industry. EPA intends to use the capital cost information gathered in the Cost Survey to perform economic analyses necessary for the development of regulatory options, including analyses of treatment technology costs and analyses of overall wastewater treatment costs. These capital costs for each upgrade/modification are requested for the year in which the upgrade/modification occurred. EPA intends to combine these costs with other treatment system costs to determine if the various regulatory options are economically achievable. In addition, EPA intends to combine these cost data with other wastewater treatment costs in order to determine the total cost that each site currently incurs in treating wastewater, and to determine the financial impacts that proposed regulatory options may make on each site.



**Subject:** QUESTION 3A-8

**Note:** This question has become Detailed Survey Questions 2A-21 and 3A-4, and Short Survey Question 3A-4 due to survey revisions and updates.

**Comment**

**Numbers:** W1.65.P5, W4.227.P29

**Commenters:** AK Steel (1), AISI (1)

**Summary:**

Question 3A-8 asks respondents to provide information about influent streams to the wastewater treatment system.

Two commenters (AK Steel, AISI) say that “completion of the questionnaire for each influent stream is an undue burden. All of the information would be supplied on the flow sheets.”

**Response:**

EPA does not agree that the information requested in this question is supplied on PFDs. The Agency has not requested flow rates on PFDs because this information is best presented in tabular form. EPA has requested the source of wastewater and receiving treatment code to match the flow rate with the stream.

EPA needs the information requested in this question to study the flow of wastewaters through each unit of the treatment system to help determine the baseline level of treatment currently performed in the industry, as well as to accurately develop cost estimates for regulatory options. In addition, EPA requires these data to adequately characterize the sources that combine to form influent streams, and to compare analytical data supplied by the site to each influent stream.

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**Subject:** PARALLEL

**Comment**

**Numbers:** W4.30.P3

**Commenters:** AISI (1)

**Summary:**

One commenter (AISI) notes that “wastewater treatment devices that operate in parallel will require repeatedly answering large groups of questions without providing any

additional information. Questions should be re-phrased to address ‘systems’ instead of devices or units.”

**Response:**

EPA agrees with AISI’s comment, and has modified Section 3 to eliminate some questions that were to be copied and answered for each treatment unit. For example, Detailed Survey Questions 2A-28 and 3A-8, and Short Survey Question 3A-8 request the chemical additions to the treatment system. To reduce burden, the Agency has requested that the respondent complete one line of the table for each chemical, rather than each treatment unit.

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**Subject:** SECTION 3B

**Comment**

**Numbers:** W2.23.P3, W3.176.P19, W4.221.P28, W5.23.P2, M1.2.P2, M3.24.P3, M5.18.P4

**Commenters:** STI (1), SSINA (1), AISI (1), Wheatland (1), AISI meeting 10/22/97 (1), STI meeting 11/20/97 (1), AISI meeting 12/12/97 (1)

**Summary A:**

Three commenters (STI, SSINA, Wheatland) say that completing six pages of information for each tank in a treatment system is burdensome and redundant, the information is generally unavailable, the questions do not reflect the overall process, and this information is unnecessary for the development of ELGs. The flow diagram required by Section 3A is adequate for this purpose.

One commenter (AISII) suggests that “no useful information would be provided in the response to the questions in Section 3B. These questions should be re-drafted to address the system, not the individual units.”

**Response A:**

EPA has not requested treatment unit information on the PFD because this information is best presented in tabular form. The Agency has modified Detailed Survey Section 2A and 3A, as well as Short Survey Section 3A, to contain two questions which request information on a treatment unit basis.

Detailed Survey Questions 2A-21 and 3A-4, and Short Survey Question 3A-4 request identification of each source of wastewater to the treatment system, the estimated average flow rate of each source, and the receiving treatment unit code. EPA intends to use this information to study the flow of wastewaters through each unit of the treatment system to help determine the baseline level of treatment currently performed in the industry, as well

as to accurately develop cost estimates for regulatory options. In addition, EPA intends to use these data to characterize the sources that combine to form influent streams, and to compare analytical data supplied by the site to each influent stream.

Detailed Survey Questions 2A-22 and 3A-5, and Short Survey Question 3A-5 ask for design and operating data for each treatment unit in the system. The respondent is asked to indicate whether the treatment unit is batch or continuous, provide the design capacity flow rate of the treatment unit, list design parameters applicable to that unit, and list the year the unit was installed. EPA intends to use this information to characterize the treatment unit, to determine the capacity the unit has to handle any additional flows associated with the model technologies being considered, and to determine if treatment units are nearing the end of their service life. The age of the treatment unit(s) is also an indicator for recent projects which may be selected to receive the Cost Survey.

**Summary B:**

During a trade association (STI) meeting, it was questioned whether EPA needs detailed information on each treatment unit tank and device. Members asked: Could a treatment plant schematic showing the location of chemical additions suffice?

**Response B:**

EPA is no longer requiring respondents to provide certain information (e.g., chemical additions) on a unit-specific basis; however, these data are requested on a treatment system basis. These data are not required on the PFD.

**Summary C:**

During two separate meetings with one trade association (AISI), it was suggested that treatment units operating in parallel could be addressed collectively, and identical systems only need to be described once.

**Response C:**

It is not the Agency's intention to duplicate information. Detailed Survey Sections 2A and 3A, as well as Short Survey Section 3A, have been modified to collect information on a system basis, rather than a unit basis. In addition, if a site operates identical treatment systems in parallel, the respondent may make a note of the parallel system on the Comments page at the end of the section in lieu of completing a duplicative response.

**Subject:** QUESTION 3B-7.A

**Comment  
Numbers:** W1.66.P5, W4.229.P29

**Commenters:** AK Steel (1), AISI (1)

**Summary:**

Question 3B-7.a asks respondents to list pollutant parameters which are believed or are known to be present in the treatment unit.

Two commenters (AK Steel, AISI) say that “this question is much too broad unless the term ‘pollutant’ is limited in some way. Possibly a list of characteristics should be addressed. Attach the most recent ‘Form 2C.’”

**Response:**

Note: This question has become Detailed Survey Questions 2A-32.a and 3A-13.a, and Short Survey Question 3A-10.a due to survey revisions and updates.

EPA agrees with AK Steel’s and AISI’s comment, and has modified this question to request the identification of all metal, organic, dioxin/furan, and PCB pollutant parameters which are believed to be or are known to be present in the wastewater in the treatment system. EPA is not requesting the site’s most recent Form 2C because the Agency is not limiting its request only to presently regulated pollutants. If a site has a readily available list of these parameters, the respondent may attach this list in lieu of providing a response to this question.

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**Subject:** SECTION 4

**Comment  
Numbers:** W1.67.P5

**Commenters:** AK Steel (1)

**Summary:**

For Section 4: Wastewater Outfall Information, one commenter (AK Steel) asked “why is this section needed? It has nothing to do with how wastewater is treated, just where it leaves the plant. Furthermore this Section is requesting us to reconfigure monitoring data that are already available through PCS. Section 4 should be eliminated or made optional.”

**Response:**

Each question in Section 4 is justified in ICR Section 4(b). EPA needs data requested in this section in order to characterize the site's discharges and identify the locations of permit monitoring locations and outfalls. EPA also needs to understand these locations in order to evaluate expanded use of "the water bubble" provision in 40 CFR 420.03. The Agency also intends to correlate information regarding the discharge of treated wastewater with data and information leading back to the generation of the wastewater. In addition, EPA intends to combine the wastewater sampling summary data requested in this section with data collected through other mechanisms to characterize iron and steel industry wastewaters, and to estimate industry pollutant loadings. Also, EPA needs the requested data in order to identify recipients for the Analytical Data Follow-up Question and in order to study the systems that iron and steel sites are using to meet the requirements of the current rule. As part of the rulemaking effort, EPA may decide to sample wastewater in order to characterize treatment system technologies at some iron and steel industry sites.

Although the Agency will use PCS data to the extent possible, PCS data alone cannot support the data analyses described above because EPA needs to know the sources of the water to the location, the flows of each source, and all parameters that have been monitored (not just those that have been monitored for compliance).

The Agency has modified Detailed Section 4 to provide the respondent with the option of submitting readily available electronic summaries of information in lieu of providing a response to Detailed Survey Question 4B-4. In addition, the Agency has modified Short Survey Section 3B to provide the same option for Short Survey Question 3C-1.

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**Subject:** QUESTION 4A-5

**Comment**

**Numbers:** W2.24.P3, W3.177.P20, W5.24.P2, M3.25.P3

**Commenters:** STI (1), SSINA (1), Wheatland (1), STI meeting 11/20/97 (1)

**Summary A:**

Question 4A-5 asks "how many discharge locations (outfalls) does this site have for discharging contaminated storm water without any process wastewater?"

Two commenters (STI, Wheatland) ask "what is meant by 'contaminated storm water'?" During EPA's meeting with STI, it was suggested that this question be revised to replace the term contaminated.

**Response A:**

EPA agrees with STI's and Wheatland's comment, and has replaced all references to "contaminated storm water" with "storm water associated with industrial activity."

**Summary B:**

One commenter (SSINA) suggests that this question be deleted. "This question does not address issues relevant to the development of ELGs."

**Response B:**

EPA disagrees with SSINA's comment. The Agency has, however, replaced Questions 4A-1 through 4A-6 with Detailed Survey Question 4A-1. This question asks the respondent to indicate, in the given table, the designation of each outfall or permit monitoring location on site, the type(s) of wastewater(s) discharged, and the discharge destination. EPA needs this information in order to characterize the site's discharges.

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**Subject:** QUESTION 4A-6

**Comment**

**Numbers:** W3.178.P20, M3.26.P3

**Commenters:** SSINA (1), STI meeting 11/20/97 (1)

**Summary:**

Question 4A-6 asks "how many discharge locations (outfalls) does this site have for discharging noncontaminated storm water without any process wastewater?"

During EPA's meeting with STI, it was suggested that this question be revised to replace the term noncontaminated.

**Response A:**

EPA agrees with STI's comment, and has replaced all references to "noncontaminated storm water" with "storm water not associated with industrial activity."

**Summary B:**

One commenter (SSINA) suggests that this question be deleted. "This question does not address issues relevant to the development of ELGs."

**Response B:**

EPA disagrees with SSINA's comment. The Agency has, however, replaced Questions 4A-1 through 4A-6 with Detailed Survey Question 4A-1. This question asks the respondent to indicate, in the given table, the designation of each outfall or permit monitoring location on site, the type(s) of wastewater(s) discharged, and the discharge destination. EPA needs this information in order to characterize the site's discharges.

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**Subject:** QUESTION 4A-7

**Note:** This question has become Detailed Survey Question 4A-1 due to survey revisions and updates.

**Comment**

**Numbers:** W3.179.P20

**Commenters:** SSINA (1)

**Summary:**

Question 4A-7 asks for an outfall designation, type of wastewater being discharged, and the discharge destination for each discharge location and internal permit monitoring location.

One commenter (SSINA) suggests that "this question should only pertain to process water locations."

**Response:**

EPA disagrees with SSINA's comment. The Agency needs this information in order to characterize the site's discharges. In addition, EPA needs this information in order to correlate information gathered in this survey section with information gathered in other sections of the survey. In addition, EPA needs this information in order to aid in the review of summaries of information submitted in Section 4B of the survey, to evaluate expanded use of "the water bubble" provision in 40 CFR 420.03, and to conduct an environmental impact analysis.

**Subject:** QUESTION 4B-5

Note: This question has become Detailed Survey Question 4B-3 and Short Survey Question 3B-3 due to survey revisions and updates.

**Comment**

**Numbers:** W2.25.P3, W5.25.P2

**Commenters:** STI (1), Wheatland (1)

**Summary:**

Question 4B-5 asks which parameters are regulated by the site's NPDES, POTW, or PrOTW permit; the limits on each parameter; whether or not the limits are water quality-based limits (if directly discharged); and whether or not the limits are local limits (if discharged to a POTW or PrOTW).

Two commenters (STI, Wheatland) question, "for 'permit limit', do you want average or maximum or both? What about outfalls with monitoring requirements but no limits?"

**Response:**

EPA has modified this question to request monthly average and daily maximum permit limits. The Agency has also included a column in which respondents may indicate whether they have monitoring requirements for particular pollutants but not limits.

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**Subject:** FORMAT

**Comment**

**Numbers:** M1.4.P2, M5.2.P1, M5.5.P2, W1.2.P1, W4.2.Piv, W4.19.P2

**Commenters:** AISI meeting 10/22/97 (1), AISI meeting 12/12/97 (2), AK Steel (1), AISI (2)

**Summary A:**

Two commenters (AK Steel, AISI) remarked that the questionnaire should be provided in electronic format, compatible with Microsoft Word, WordPerfect, Lotus, and/or Microsoft Excel to facilitate data entry and provide ease of reproduction by the facility. The commenters felt that having to prepare a hard copy will only add to the time needed to complete the questionnaire.

**Response A:**

EPA will administer the Collection of 1997 Iron and Steel Industry Data in hard copy format. Respondents may copy pages of the administered survey or download and print



additional copies of the survey (or individual sections) from EPA's web site, if additional blank pages are necessary. However, the Agency requires that respondents submit their completed surveys in signed, certified, hard copy format.

EPA has determined that the option to administer the Collection of 1997 Iron and Steel Industry Data in electronic format is precluded by the added cost and increased burden that would be incurred in creating an electronic survey response system. ICR Section 5(b) discusses the issues regarding this decision.

#### **Summary B:**

AISI requested that the survey and the ICR be broken into smaller files for downloading when they are posted on EPA's web page.

#### **Response B:**

EPA acknowledges AISI's comment, and has separated the ICR into electronic files suitable for downloading.

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**Subject:** NARRATIVE

**Comment  
Numbers:** M5.17.P4

**Commenters:** AISI meeting 12/12/97 (1)

#### **Summary A:**

AISI commented in their December 12, 1997 meeting with EPA that the integrated mills are complicated such that answering the generic survey questions will not provide an accurate picture of what is happening. After a discussion, the group suggested that if a set of questions does not match a specific situation, a brief narrative could be attached in lieu of answering that set of questions.

#### **Response A:**

Each section-specific set of instructions advises the respondent to contact the Help Lines or send an E-mail message to the Internet Help Line addresses if he or she has questions regarding the completion of the survey. If a requested response format does not appear to be applicable to a respondent's site, a Help Line staff member will work with the respondent. If a Help Line staff member is unable to resolve the issue, he or she may direct the respondent to provide an alternate method of response (e.g., a narrative in the Comments page), but only on a case-by-case basis.

**Summary B:**

AISI also suggested that space could be provided for the name and phone number of a site contact who is more familiar with the system other than the contact requested in Section 1.

**Response:**

EPA acknowledges AISI's comment, but has not included this requirement in each survey section. If the respondent wishes to provide contact information for a person familiar with a specific system, he or she may provide this information on the Comments page located at the end of each section.

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**Subject:** MASS LIMITATIONS

**Comment  
Numbers:** W1.62.P4, W4.218.P27

**Commenters:** AK Steel (1), AISI (1)

**Summary:**

Two commenters (AK Steel, AISI) remarked that, "EPA is requesting a great deal of information based upon the concentrations of various pollutants, when in fact the steel industry is generally subject to mass limitations imposed by NPDES permits. EPA must give proper credit for those facilities employing water conservation techniques which substantially reduce their effluent flow. It should be recognized that these techniques may result in the discharge of higher concentrations of pollutants at a significantly reduced flow. In many cases, there is a net reduction of the mass of pollutants in the discharge which results in a net benefit to the environment. Facilities which have not invested significant capital upgrades for water minimization and recirculation systems may skew the data. Because of this, mass data should be requested in lieu of concentration data."

**Response:**

EPA has not modified the surveys to request only mass-based data because it must analyze all data before determining the appropriate basis for the rule. By collecting concentrations and flows, EPA can calculate mass-based quantities/discharges.

EPA is very interested in water conservation techniques and has included questions (e.g., Detailed Survey Question 2M-17, Detailed Survey Section 3B, and Short Survey Section 2C) which request descriptions of any pollution prevention and management techniques employed by the site. In addition, EPA is collecting detailed water flow data, which can be combined with concentration data to calculate mass discharges.

**Subject:** BURDEN

**Comment**

**Numbers:** M1.1.P2, M1.3.P2, M1.5.P2, M1.8.P3, M2.1.P2, M2.2.P3, M4.13.P4, M5.1.P1, M5.3.P1, M5.4.P2, W1.1.P1, W2.27.P3, W3.1.P2, W3.2.P2, W4.1.Piv, W4.15.P1, W5.27.P3, W6.1.P2

**Commenters:** AISI meeting 10/22/97 (4), SMA meeting 11/6/97 (2), SSINA meeting 12/4/97 (1), AISI meeting 12/12/97 (1), AK Steel (1), STI (1), SSINA (2), AISI (2), Wheatland (1), SMA (1)

**Summary A:**

Six commenters (AK Steel, STI, SSINA, AISI, Wheatland, SMA) felt that the level of detail requested by the survey was too great and the survey would need to be simplified.

**Response A:**

In response to comments, and due to further development of the iron and steel industry mailing list, EPA modified the original survey. These changes are discussed in more detail in ICR Section 3(b)(iii). To further reduce the burden on the overall industry, EPA created the Short Survey, the Cost Survey, and two follow-up questions that are targeted to a subset of the industry. The revised data collection, entitled the Collection of 1997 Iron and Steel Industry Data, will place a lower level of burden on a majority of the iron and steel industry sites than was anticipated in the October 20, 1997 Federal Register notice (Volume 62, Number 202, Pages 54453-54454) (i.e., an average burden of 119 hours versus an average burden of 171 hours per site).

**Summary B:**

Six commenters (AK Steel, STI, SSINA, AISI, Wheatland, SMA) felt that the survey was too long and complex and that the allotted time frame of 90 days to complete the survey was insufficient and should be increased to 180 days.

**Response B:**

From the date of receipt, integrated steel sites will have 120 calendar days and all other iron and steel sites will have 90 calendar days to respond and return the completed Detailed or Short Survey to the Agency. Sites will have 45 calendar days from the date of receipt to respond and return the completed Cost Survey, production follow-up question, or analytical data follow-up question. Because the Agency is on a schedule driven by a judicially enforced consent decree, it cannot further extend these response periods.

ICR Section 6(a) presents the Agency's detailed estimates of respondent burden. EPA has made an individual estimate for each type of site completing each survey section. The

Agency has also made individual burden estimates for the Cost Survey, Production Follow-up Question, and Analytical Data Follow-up Question.

**Summary C:**

AISI commented that all integrated mills will need to hire outside consultants to help fill out the surveys, creating a consultant capacity problem, since there are a limited number of consultants and all mills would need their services at the same time.

**Response C:**

EPA has increased the survey response time for integrated mills to 120 days. Sites with special circumstances should contact the Agency to request an extension. EPA will evaluate each request on a case-by-case basis.

**Summary D:**

AISI requested that the survey distribution be staggered in order to relieve some of the burden placed on respondents with several facilities. They also suggested that groups of surveys being sent to facilities owned by one corporation should be sent to one point of contact.

**Response D:**

Because the Agency is on a schedule driven by a judicially enforced consent decree, it cannot stagger or extend the survey response periods. The Cost Survey, Production Follow-up Question, and Analytical Data Follow-up Question, however, will be administered in a staggered distribution.

EPA will send the appropriate portion of the survey mailing list to each iron and steel trade association identified by the Agency. Trade associations can then work with their members and submit revised mailing addresses and contact names if they choose.

**Summary E:**

Six commenters (AK Steel, STI, SSINA, AISI, Wheatland, SMA) estimated that 1,000 to 2,000 man-hours and \$100,000 to \$150,000 would be required to complete Part A of the survey.

SMA commented that, "Completion of the survey will require significant expenditures of SMA member companies' time and financial resources. Although EPA's estimates of the amount of time required to complete the survey...are accurate, EPA should also take into account the cost of completing the survey. Most SMA member companies have only one engineer on staff per facility to handle environmental compliance. This means that a proper, good-faith completion of the survey will require the hiring of environmental consultants."

**Response E:**

ICR Section 6(b) contains the Agency's detailed estimates of the respondent labor costs and O&M costs associated with each survey and follow-up. Each estimate reflects the assumption that surveys will be completed by junior engineers, junior accountants, mid-level engineers, managers, lawyers and clerks. The Agency obtained mean labor rates for each iron and steel industry respondent type from the May 1997, U.S. Department of Labor, Bureau of Labor Statistics: *1996 National Occupational Employment and Wage Data* publication. To derive the 1997 hourly total compensation rates, the Agency adjusted the mean labor rates by the appropriate U.S. Department of Labor, Bureau of Labor Statistics: Employment Cost Index (ECI) inflator. These rates have not been adjusted for consultants.

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**Subject:** WATER QUALITY LIMITS

**Comment**

**Numbers:** W1.70.P5, W4.32.P3, M1.10.P3, M3.1.P1

**Commenters:** AK Steel (1), AISI (1), AISI meeting 10/22/97 (1), STI meeting 11/20/97 (1)

**Summary A:**

Two commenters (AK Steel, AISI) state that the need to develop new effluent limitation guidelines through this burdensome process is unnecessary because water quality criteria imposed by the states and local limitations imposed by POTWs are already in place to protect water quality. As indicated by the Agency and the various State agencies, non-point sources are the leading cause of stream impairment, not industrial point sources.

During meetings with two trade associations (AISI, STI), members indicated that water quality-based effluent limitations derived by state NPDES permit authorities are more restrictive than corresponding technology-based effluent limitations derived from Part 420, particularly end-of-pipe effluent limitations for toxic metals. Consequently, members questioned whether the survey and possible revision of the effluent limitations guidelines is necessary.

**Response:**

EPA is subject to a judicially enforceable consent decree that requires the Agency to review and revise Iron and Steel Effluent Limitations Guidelines and Standards in accordance with the Clean Water Act. Moreover, although water quality limits exist in some areas of the country, and these limits are more stringent than current ELGs, not all point sources subject to Part 420 have water quality-based limits for all of the pollutants that new Effluent Limitations Guidelines and Standards might address.

Nonpoint sources are an important issue; however, they do not preclude review of industrial discharges.

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**Subject:** END USE

**Comment**

**Numbers:** W1.27.P3, W1.33.P3, W1.54.P4, W2.4.P2, W2.10.P2, W3.59.P9, W3.132.P15, W3.142.P16, W4.86.P11, W4.100.P13, W4.105.P13, W4.129.P16, W4.192.P24, W5.4.P1, W5.10.P1

**Commenters:** AK Steel (3), STI (2), SSINA (3), AISI (5), Wheatland (2)

**Summary:**

Several questions ask respondents to indicate the end use(s) of products (e.g., sinter, agglomerate, iron, DRI, hot forming mill products, cold forming mill products) and to provide the percentage of the total product produced for each usage.

Five commenters (AK Steel, STI, SSINA, AISI, Wheatland) believe that the end uses of products (e.g., sinter, agglomerate, iron, DRI, hot forming mill products, cold forming mill products) produced are not relevant and should be deleted.

**Response:**

EPA reviewed the questions and determined that Question 2C-19 (agglomerate) could be deleted. EPA also determined that it needed to retain the remaining questions (e.g., Detailed Survey Question 2A-3) but reduced the complexity of the questions in response to comments. The respondent is asked to identify the percentage of the product that is: (1) on site, (2) transferred to other parts of the company, or (3) sold to other companies, (i.e., only three alternatives). The intermediate products are associated with different subcategory processes. EPA needs to address the economic achievability of options for each subcategory independently. EPA needs this information in order to understand the product flow at the site and the site's financial relationship to other parts of the company. If all of the intermediate product is consumed or further processed on site, then the costs and revenues for the site reflect this and all other processes performed with the product. If a substantial portion of the site's production is transferred to other sites under the same corporate ownership, such transfers may be done at cost or with an intra-company price that does not reflect market conditions. If a substantial portion is sold to other companies, the information is needed to understand the relative importance of such sales to a site's total revenues.

**Subject:** FINANCIAL AND ECONOMIC INFORMATION

**Comment**

**Numbers:** M4.12.P4, W1.68.P5, W1.73.P5, W2.26.P3, W3.181.P20, W3.182.P20, W3.183.P20, W3.184.P20, W4.13.Pv, W4.232.P30, W4.233.P30, W4.234.P30, W4.235.P30+, W4.236.P31, W4.237.P31, W4.238.P31, W4.239.P31, W4.240.P31, W4.241.P31, W5.26.P2

**Commenters:** SSINA meeting 12/4/97 (1), AK Steel (2), STI (1), SSINA (4), AISI (11), Wheatland (1)

**Summary A:**

AK Steel and AISI commented that, “Much of the financial data requested is already available through annual reports and filings submitted to the SEC or other government agencies. EPA should obtain the financial data from these sources or from other publicly available documents.”

**Response A:**

EPA must examine the economic impacts of the various regulatory options on all facilities likely to be affected by them, regardless whether the entity is public or private. EPA also examines impacts on several different levels—site, company, industry, and the nation. The survey is the only source of financial and economic information for private entities. The survey is also the only source of information for facilities except for single-facility public companies. Reliance on public data provides an incomplete picture for analysis.

**Summary B:**

AK Steel and AISI commented that, “Requesting financial information to the nearest dollar [in Questions 62 to 66 of Part B] is excessive detail when the gross amounts are in the billions. This level of detail will only ensure that the totals will not reconcile.”

**Response B:**

In response to this comment, EPA now requests financial information in dollars, but rounded to the nearest thousands. All respondents from small single-facility companies (such as a wire-drawing facility) to large integrated firms provide information the same basis, hence the need for format of the response.

**Summary C:**

STI and Wheatland commented that, “...most of the requested information is not pertinent to determining the impact on a company of effluent guidelines. Additionally, privately held companies are not required to accumulate and furnish many of the various categories of cost information requested.”

**Response C:**

EPA examines impacts on several levels—site, company, industry, and the nation. EPA has provided justification for each of the questions for review by the Office of Management and Budget in Section 4(b) of this document. While privately held companies do not produce an annual report with financial information for its stockholders as do publicly held firms, EPA has designed questions to follow a condensed format for an income statement and balance sheet, which are two common financial statements. EPA is not requiring audited financial statements, merely a statement by the respondent that the financial statements follow generally accepted accounting principles (GAAP). Such statements are an integral part of managing any company whether it is public or private. Therefore, EPA does not believe that providing such statements will be burdensome for the respondent. EPA also designed the questions in Section 2 of Part B (Site Information) to allow the respondent to identify which information is not maintained or recorded at the site or facility or for different product lines (see Questions 16, 17, and 38). EPA also allows the respondent to identify where data are best estimates (see Questions 18 through 34).

**Summary D:**

SSINA commented that, “EPA should delete sections [in Part B] concerning ‘facility’, ‘business entity’, and ‘corporate’ financial information. This information is confidential and it is unnecessary for EPA to collect this type of information in such detail. As is, SSINA estimates that completing Part B alone may take 200 hours or more.”

**Response D:**

EPA is cognizant that it is requesting confidential business information. The survey contains check boxes for all but the basic site identification information to allow the respondent to identify which data are confidential. EPA has procedures in place to protect the confidentiality of such responses.

EPA is required by the Clean Water Act to assess the economic achievability of proposed and final effluent guidelines. As such, it is necessary for EPA to collect economic and financial information for facilities and companies.

EPA designed the survey to minimize the burden on the respondents. The questions in Section 2 of Part B (Site Information) allow the respondent to identify which information is not maintained or recorded at the site or facility or for different product lines EPA (see Questions 16, 17, and 38). EPA also allows the respondent to identify which data are best estimates (see Questions 18 through 34).

ICR Section 6(a) presents the Agency’s detailed estimates of respondent burden. EPA has made an individual estimate for each type of site completing each survey section.



**Summary E:**

SSINA commented that Question 4 in Part B should be deleted because it is irrelevant to the development of ELGs for process wastewater.

**Response E:**

Executive Order 12866 requires EPA to consider whether the benefits justify the costs of proposed or final regulations. Question 4 requests the respondent to identify the street names at the nearest intersection. These data allow EPA to locate the site in GIS (geographical information system) or Census databases. In other words, the question is included to assist EPA in the benefits analysis.

**Summary F:**

SSINA commented that [for Questions 20-23 in Part B], “EPA must clarify the term ‘value’ in the Definitions section in Part B. Does the term include burdened or unburdened cost; book value or market value; internal transfer price?”

**Response F:**

In response to this question, EPA added the term “value” to the Part B definition list. The definition follows that used for the definition for "value of shipments" from the Census of Manufactures Industry Series: Blast Furnaces, Steel Works, and Rolling and Finishing Mills. Rather than force the respondent to recalculate transfer prices on a basis it does not use, EPA requests the respondent to identify the basis for the internal transfer price—production cost, market value, or other—in Question 21. The question format is open ended to allow the respondent to describe whatever method is used for that site.

**Summary G:**

SSINA commented that, “It is unclear whether these questions [Question 28-30 in Part B] are asking for information regarding net sales. EPA must clarify the questions. Defining the term ‘value’ would help.”

**Response G:**

In response to this question, EPA added the term “value” to the Part B definition list. The definition follows that used for the definition for "value of shipments" from the Census of Manufactures Industry Series: Blast Furnaces, Steel Works, and Rolling and Finishing Mills.

**Summary H:**

AISI commented that, “The financial data required in Part B of the survey, by itself, will involve a massive effort. Further, the types of personnel that will be needed to complete

Part B will be completely different from those completing Part A. A different set of professionals will be needed in addition to the technical consultant needed to complete Part A.”

**Response H:**

EPA disagrees that completion of Part B will be a massive effort. EPA took numerous steps to minimize the burden to respond to the survey. First, EPA designed two surveys of differing length and complexity. The short survey is targeted to a population that is likely to have a substantial number of small businesses. Second, for the long survey, EPA designed the economic and financial portion (Part B) such that the respondent needs only complete the sections relevant to the site’s corporate hierarchy. A small entity is more likely to have a business entity that is no more than one site. Under such circumstances, the respondent completes only Part B, Sections 1 and 2. Larger entities with more complex corporate structures would also need to complete Part B, Sections 3 and 4. The number and complexity of the questions decreases with each additional section. Third, EPA has designed questions to follow a condensed format for an income statement and balance sheet, which are two common financial statements. EPA is not requiring audited financial statements, merely a statement by the respondent that the financial statements follow generally accepted accounting principles (GAAP). Fourth, EPA designed the questions in Section 2 (Site Information) to allow the respondent to identify which information is not maintained or recorded at the site or facility or for different product lines (see Questions 16, 17, and 38). Finally, EPA also allows the respondent to identify which data are best estimates (see Questions 18 through 34).

EPA concurs that different personnel will be needed to complete Parts A and B. These different personnel are listed in Section 6 of the ICR justification. EPA also designed Part B with its own certification page because it was assumed that Part B would be completed by a person different from the one that completed Part A.

**Summary I:**

AISI commented that “In many cases, records are not kept at the Production Unit level of detail.”

**Response I:**

EPA needs to design a long survey that is appropriate for a wide range of respondents. Some respondents might keep information at the production unit level while others do not. Question 17 asks the respondent to identify whether separate financial information is maintained for different product lines. EPA’s approach in the financial portion of the economic analysis effort is to evaluate a site on the same basis as its owner. If the respondent can certify that financial information is not recorded on that basis, EPA will not require the respondent to create that information. The respondent must provide the information that is available, such as total production costs for the site, and any associated explanatory material in the comments to that section.

### **Summary J:**

AISI commented that [for Question 8, Part B: Section 1], “There is the potential for multiple corporate hierarchies for a single site. EPA should be aware of this possibility. Preparing a response under this type of ownership arrangement will increase the burden on the respondent and may create some confusion at EPA in processing the response.”

### **Response J:**

EPA is aware that sites might have a wide range in potential corporate hierarchies. The question requests the respondent to identify the example that *best* (emphasis added) corresponds to the chain of ownership for the site. A toll-free Help Line is available should a respondent need clarification for how to answer the question. A respondent only needs to complete one Section 3 (a business entity) and one Section 4 (corporate parent) per site. EPA does not anticipate a need for multiple Sections 3 and 4 for a single site, even if it is a joint entity. Questions 47 and 48 in Section 3 ask the respondent to identify the business entity that operates the site, specify that Section 3 should be completed for that business entity, and request only the identification of the other partners in the arrangement.

### **Summary K:**

AISI commented that [for Question 20, 32, 33, and 34, Part B: Section 2]. “There is no code in Appendix A for by-products. Is that item intended to be included in the list for this question?”

AISI remarked [for Question 28 and 30, Part B: Section 2], “Are coke and its by-products intentionally omitted from these questions?”

### **Response K:**

In response to these comments, EPA reconsidered the importance of detailed information on coke by-products and expanded the product categories listed in Appendix A to include coke by-products. EPA also revised Questions 20, 28, 30, 32, and 33 to specifically list coke, coke by-products, iron, and steel. (The questions are now numbered 20, 26, 28, 30, and 31, respectively). Question 34 (now numbered 32) requests information for production costs by product code. Because coke, coke by-products, iron, and steel are identified in the Appendix A product code list, AISI’s comments have been addressed.

### **Summary L:**

AISI commented that [for Question 33, Part B: Section 2], “The term ‘manufactured’ needs to be clarified. Facilities do keep track of shipments by SIC code, but not of internal plant quantities manufactured.”

AISI commented that [for Question 34, Part B: Section 2], “Facilities do not routinely report production by SIC code.”

**Response L:**

EPA changed the term “manufactured” to “produced” in response to the comment. AISI is mistaken; EPA does not request shipment or production quantities by SIC code. EPA developed a product list, given in Appendix A, that the respondent is to use when completing the questionnaire. The difference between quantity produced and quantity shipped in a given year is the change in inventory for that year. EPA considered the possibility that not all sites would maintain all information as requested by the survey and provided check boxes for the respondent to identify where data were best estimates. For example, if the respondent does not track quantities produced, he or she is to provide a best estimate and check the box at the bottom of the table.

**Summary M:**

AISI commented that [for Question 35, Part B: Section 2], “Some corporations do not allocate their corporate overhead back to the Business Units.”

**Response M:**

EPA needs to design a long survey that is appropriate for a wide range of respondents. A single-site business would complete only Sections 1 and 2 of the survey. Corporate overhead for such a respondent would be listed in Question 35.b.

Multi-site corporations may or may not allocate overhead to sites. EPA structured the question to investigate the prevalence of the practice within the industry. EPA would interpret a zero entry for Question 35.b as indicating no corporate overhead is allocated to the site.

**Summary N:**

AISI commented that [for Question 39, Part B: Section 2], “Interest expenses are not reported by Business Units. Generally, projects are funded through corporate borrowing.”

**Response N:**

A single-site business would complete only Sections 1 and 2 of the survey. Interest expenses for such a respondent would be listed in Question 39.b.

Multi-site corporations may or may not allocate interest expenses to sites. EPA structured the question to investigate the prevalence of the practice within the industry. EPA would interpret a zero entry for Question 39.e as indicating no interest expense is allocated to the site. If no financial information beyond earnings before interest and taxes (e.g., interest,

income taxes, and extraordinary items) is kept at the site level, the respondent may check the appropriate box for Question 39 and leave the entry blank.

**Summary O:**

AISI commented that [for Question 42, Part B: Section 2], “This question is ambiguous and should possibly be expanded to include the types of payments and types of local governments.”

**Response O:**

In response to this comment, EPA revised the question to specify property tax payments.

**Summary P:**

AISI commented that [for Question 43, Part B: Section 2], “It is not industry practice to keep employment records on the basis of the production vs. non-production. This information cannot be developed.”

**Response P:**

In response to this comment, EPA added the following statement: “If employment cannot be divided between production and non-production employment, list the total in C and mark “NA” in the appropriate areas of A and B.”